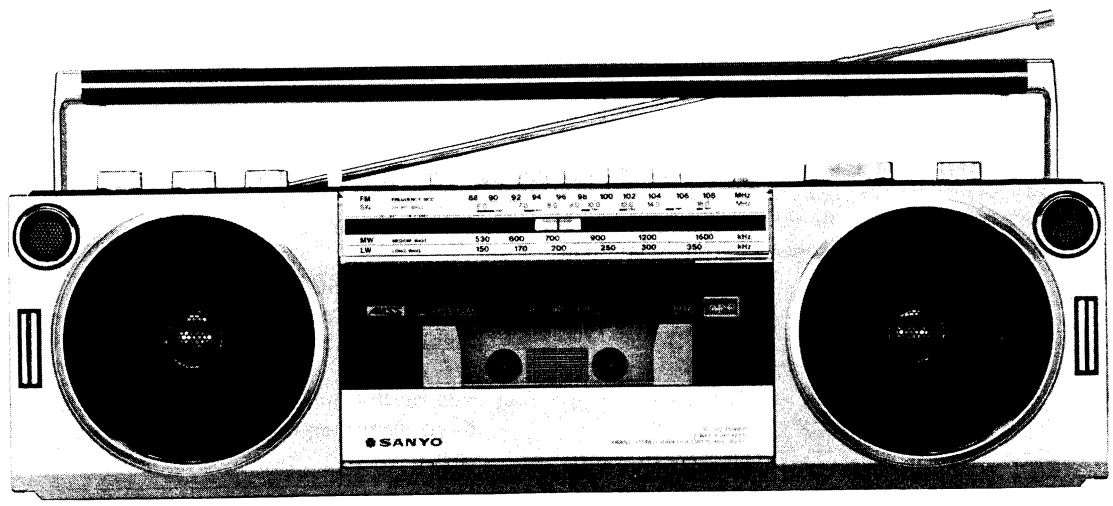
SERVICE MANUAL

SANYO

STEREO RADIO CASSETTE RECORDER

M7200LU

EUROPE



142 382 12 (Silver)
142 382 13 (Red)
142 382 14 (Blue)

SPECIFICATIONS

Power Source
- AC 115V/230V (50/60Hz)
- DC 7.5V
- (UM-2, HP11, C Cell, Babyzelle, R 14) x 5

Output Power (Max. music power) ..... 2.2W x 2 (Max.)
Power Consumption 8W
Current Consumption (at Vol. Min.)
- Record mode (with Metal) 180mA
- Playback mode 130mA
- Fast Forward mode 130mA
- Rewind mode 120mA

Recording System ..... DC Bias
Erasing System ..... DC Erasing
Tape Speed ..... 1-7/8ips. ±3%
Wow & Flutter ..... 0.15%, WRMS
Torque
- Playback ..... 34 ~ 55g-cm
- Fast Forward ..... more than 55g-cm
- Rewind ..... more than 55g-cm

Fast Forward Time ..... 110sec. (with C-60)
Rewind Time ..... 110sec. (with C-60)
Frequency Response (Overall)
- Fe_2O_3 ..... 125Hz ~ 8,000Hz

Erase Ratio (Overall, with Fe_2O_3) 45dB
Signal to Noise Ratio (with Fe_2O_3) 28dB
Crosstalk (with Fe_2O_3)
- Track to Track 50dB

Terminal Impedance
- MIC. 0.3mV/3.3kΩ
- Headphones 32Ω

Dimentions ..... 436(W) x 123(H) x 86(D)mm
Weight (without battery) 2.2kg

Frequency Range
- MW ..... 525 ~ 1,605kHz
- LW ..... 150 ~ 350kHz
- SW ..... 6 ~ 18MHz
- FM ..... 87.5 ~ 108MHz

–Specifications subject to change without notice.–

NOTE:
The above mentioned specifications are mainly based on the IHF measurements standard. They can therefore not directly be compared with specifications based on the DIN standard or other standards.

WM-10719

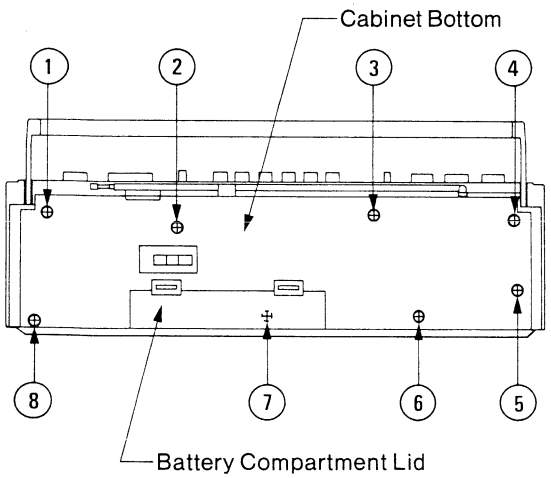
DISASSEMBLY INSTRUCTIONS

GENERAL REMARKS

- Before disassembling the unit, spread a soft rubber mat or a cloth on the work bench to avoid scratches and grease stains.
- Do not spread anything which is likely to cause static electricity because transistors and ICs may be easily damaged by it.
- Reassemble the unit, noting the kinds of screws and the soldering and arrangement of the leads. Refer to "Circuit Diagram and Exploded Views" for correct assembly.
- Before disassembling the unit, take out the cassette tape and the batteries.

CABINET BOTTOM REMOVAL

1. Detach the Battery Compartment Lid from the unit.
   Remove the eight screws (1 ~ 8) fastening the Cabinet Bottom and detach the Cabinet Bottom by carefully lifting it from the unit.



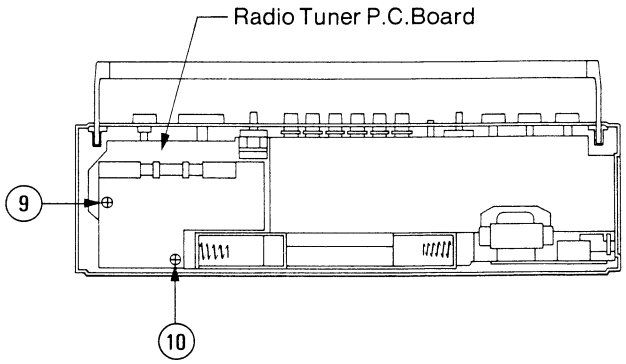
2. Disconnect the FM antenna connector from the Radio Tuner P.C.Board.
3. Reassemble in reverse order.

RADIO TURNER P.C.BOARD REMOVAL

1. Detach the Cabinet Bottom by following the instructions for the Cabinet Bottom Removal.
2. Turn the Tuning Knob fully counter-clockwise and remove the two screws (9 and 10) fastening the Radio Tuner P.C.Board and then, detach the Radio Tuner P.C.Board by lifting it.

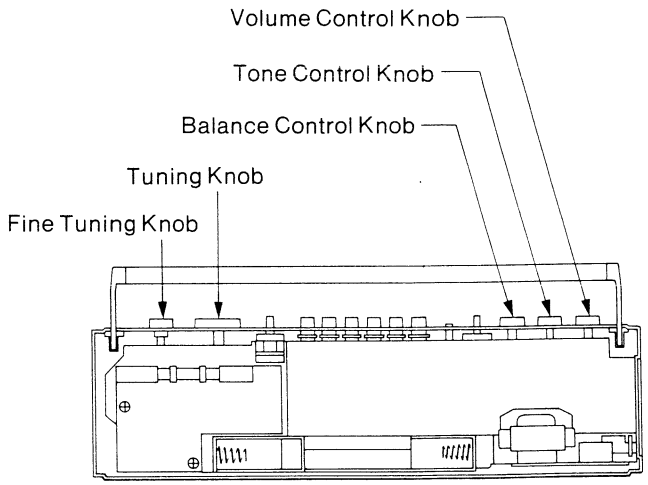
   NOTE:

   A. Do not turn the Tuning Knob before the Radio Tuner P.C.Board is re-mounted to the Cassette Mechanism.
   B. After mounting the P.C.Board, check to see that the correct dial indications are obtained.
   C. Reassemble in reverse order.



RADIO CHASSIS REMOVAL

1. Detach the Cabinet Bottom by following the instructions for the Cabinet Bottom Removal.
2. Pull out the Fine Tuning Knob, Tuning Knob, Balance Control Knob, Tone Control Knob, and Volume Control Knob from the unit.

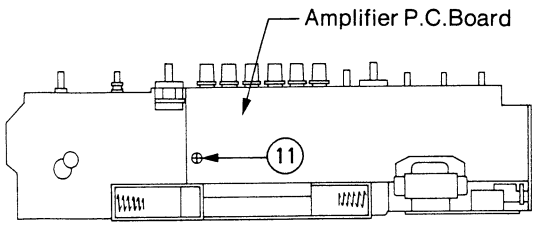


3. Disconnect the three connectors for the speakers from the Amplifier P.C.Board .
4. To detach the Radio Chassis, carefully lift the lower side of it.
5. Reassemble in reverse order.

AMPLIFIER P.C.BOARD REMOVAL

1. Detach the Radio Chassis by follow the instructions for the Radio Chassis Removal.
2. Remove the screw (11) fastening the Amplifier P.C.Board and disconnect the two connectors for the power supply.

DISASSEMBLY INSTRUCTIONS (Continued)



3. After the jacks on the P.C.Board are removed from the Radio Chassis by shifting the P.C.Board to the Radio Tuner P.C.Board side, remove the P.C.Board by lifting its lower side, noting lead wires.

4. Reassemble in reverse order.

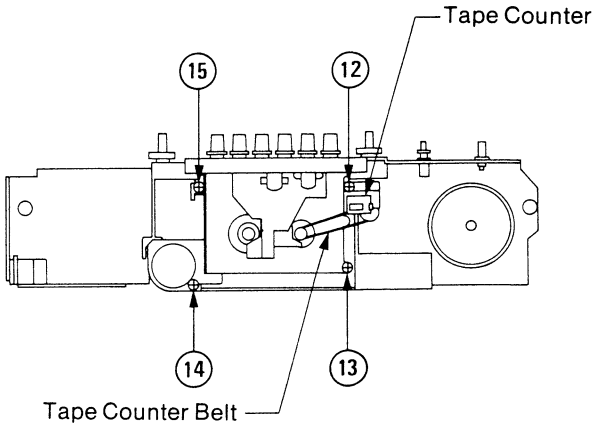
CASSETTE MECHANISM REMOVAL

1. Detach the Radio Chassis by following the instructions for the Radio Chassis Removal.

2. After removing the screw (11) fastening the Amplifier P.C.Board, turn over the unit.

3. Detach the Tape Counter and Tape Counter Belt by removing the fastening screw (12).

4. Remove the three screws (13 ~ 15) fastening the Cassette Mechanism and detach the Cassette Mechanism, noting the lead wires.



5. Reassemble in reverse order.

CASSETTE COMPARTMENT LID REMOVAL

1. Open the cassette compartment lid by pressing the Stop/Eject button.

2. To remove the cassette compartment lid, disengage the catches on both sides of the cassette compartment lid by pressing both sides firmly but carefully.

3. Reassemble in reverse oder.

ADJUSTMENT PROCEDURES

GENERAL REMARKS

- Before the adjustments, wipe off stains on the tape contacting surfaces of the parts, the belt and pinch roller with a soft cloth soaked in alcohol. Trouble may occur because of oil and grease stains.
- Carefully handle the belt because grease easily attaches to it.
- Check the rubber parts, if the rubber has quality deterioration or scratch marks, replace the part with a new one.

EQUIPMENT REQUIRED

- VTVM (2 sets)
- Frequency Counter
- Dummy Load (32Ω)
- Dualtrace Synchroscope
- DC Constant-voltage Regulator
- Test Tapes
  - ‡ 3kHz Test Tape (Example: TEAC MTT-111) for Tape Speed Adjustment
  - ‡ 8kHz Test Tape (Example: TEAC MTT-113C) for Head Azimuth Adjustment
- Alignment Tool

Unless especially specified, set the switches and controls as follows:

- Function Switch ..... TAPE
- Mode Switch ..... STEREO
- Beat Cancel Switch 1
- Balance Control ..... Center (click position)
- Tone Control ..... High
- Volume Control ..... Arbitrary

NOTE:

- ‡ Obtain the output from the Phones jack when the adjustment is performed.
- ‡ Supply 7.5V DC from the constant-voltage regulator to the Ext. Power Jack.

AMSS SOLENOID ADJUSTMENT

AMSS (Automatic Music Select System) detects a silent space (unrecorded portion) between each selection on a music tape and automatically plays back a desired selection from the start.

NOTE:

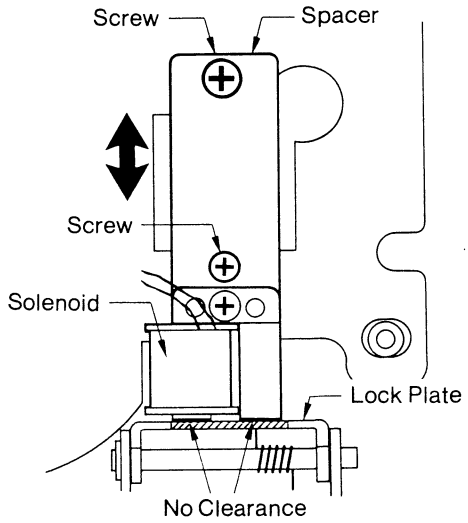
The unrecorded portion should last for more than 4 seconds.

It may not operate correctly in the following cases:

- ‡ When the recorded sound is often interrupted as in a speech tape.
- ‡ When the silent space does not last long enough (less than 4 seconds).
- ‡ When there is an appreciable noise in the silent space between two adjacent programs.
- ‡ When the unit is placed on a television set, AMSS may not operate correctly due to an adverse effect from the TV signal. In this case, move the unit away from the television set.

In cases where the AMSS Solenoid is not correctly positioned, the AMSS Switch does not function correctly, the F.FWD or Rewind button releases while AMSS is working, or a button cannot be locked, perform the adjustment as follows:

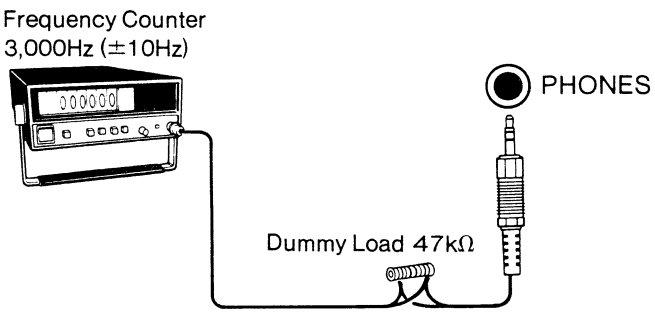
1. Remove the Cassette Mechanism from the unit by following its removal instructions.
2. Loosen the two screws fastening the Spacer of the Solenoid and adjust the Spacer by moving it in the direction of the arrow, so that the Lock Plate is tightly attached to the two absorption surfaces of the Solenoid as illustrated.



3. After the adjustment, tighten the screws.
   Set the unit in the playback mode and check that AMSS mechanism functions correctly as follows:
   - ‡ Check if F.FWD button can be locked by pressing it.
   - ‡ Check if Rewind button can be locked by pressing it.
4. Readjust the spacer position if either F.FWD or Rewind button cannot be locked or is released too soon .
5. After the adjustment, secure the screw with paint or glue.

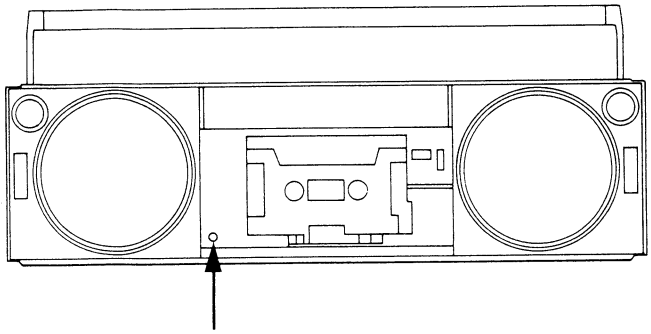
TAPE SPEED ADJUSTMENT

1. Remove the cassette compartment lid and connect a frequency counter to the left or right channel output of the Phones Jack as illustrated. Then, insert a 3kHz test tape (Example: TEAC MTT-111) into the cassette compartment.



ADJUSTMENT PROCEDURES (Continued)

2. Adjust the tape speed by slowly turning the potentiometer inside the Motor with an alignment tool until the frequency counter reads 3,000Hz (±10Hz).



Potentiometer for Tape Speed Adjustment

HEAD AZIMUTH ADJUSTMENT

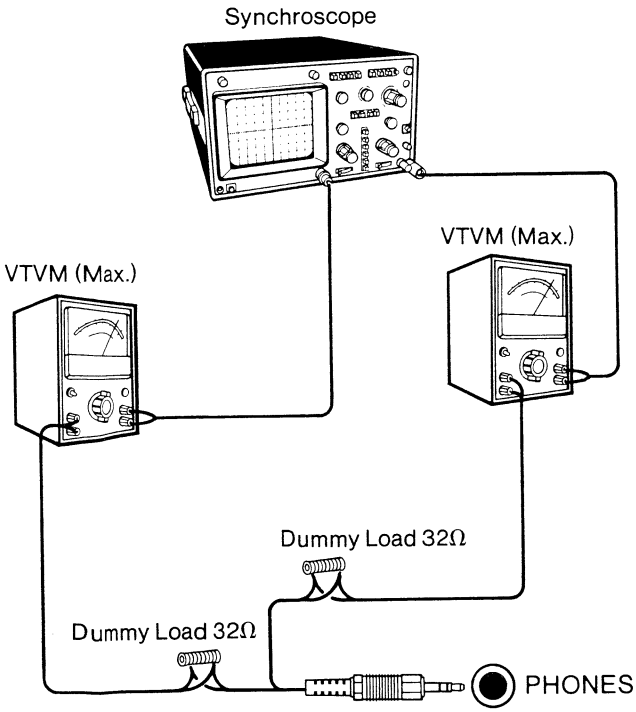
Detach the cassette compartment lid from the unit and connect a dualtrace synchroscope and a VTVM to both channel of the Phones Jack as illustrated.

Then, set the dualtrace synchroscope as follows:

- ‡ MODE ..... CHOP (chopped)
- ‡ SOURCE ..... INT (internal), CH1 or CH2
- ‡ SWEEP MODE ..... AUTO (automatic)

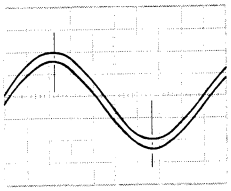
NOTE:

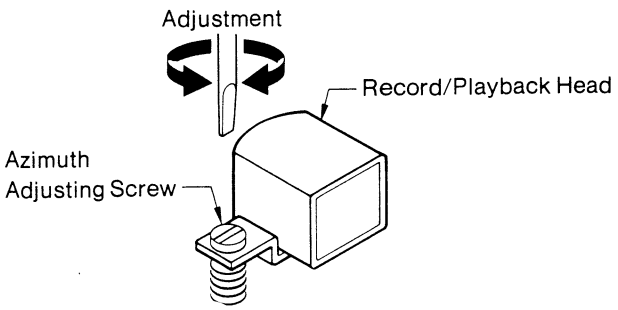
Adjust the field on the synchroscope with the VOLT. ADJ. and TIME ADJ.



1. Insert a 8kHz test tape (Example: TEAC MTT-113C) into the cassette compartment.

2. While playing back the test tape, turn the azimuth adjusting screw until the wave forms of the right and left channels are superimposed and set to optimum at maximum reading on the VTVM.



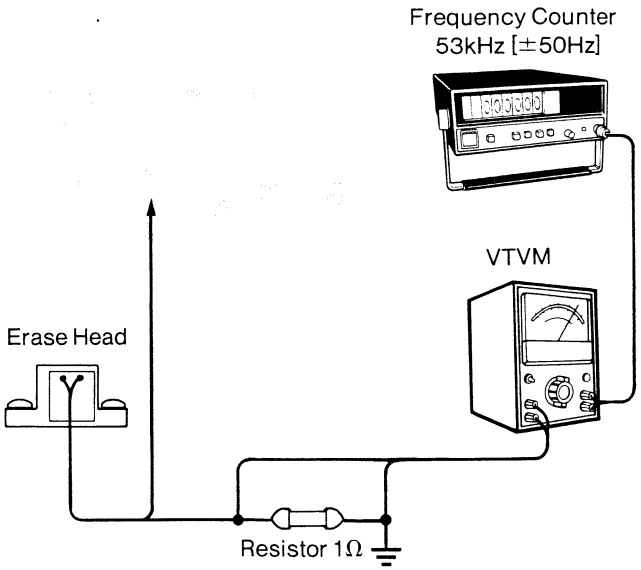


3. After the adjustment, secure the adjusting screw with paint or glue.

OSCILLATION FREQUENCY ADJUSTMENT

1. Unsolder the earth side of the Erase Head lead from the Amplifier P.C.Board and connect the lead through the resistor 1Ω to the earth as illustrated. Then, set the Beat Cancel Switch to 1.

2. Connect a VTVM across the resistor 1Ω and a frequency counter to the output terminal of the VTVM as illustrated and insert a cassette tape into the cassette compartment.



3. Set the unit in the recording mode and turn the core of the OSC Transformer (T303) with an alignment tool until the frequency counter reads 53kHz (±50Hz).

TUNER ADJUSTMENT

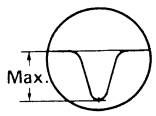
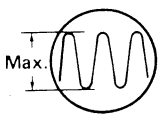
EQUIPMENT REQUIRED

- AM Standard Signal Generator
- FM Standard Signal Generator
- Generator Scope
- Loop Antenna
- Dummy Antenna (30Ω/10pF) for SW
- Ceramic Capacitor (10pF)
- Electrolytic Capacitor (1μF)
- Dummy Antenna (75Ω, unbalanced type) for FM
- Carbon Resistor (330kΩ)
- VTVM
- Oscilloscope
- Frequency Counter
- Dummy Load (3.2Ω)
- Alignment Tool
- Before performing the adjustment, set the switches and controls as follows:
  - ‡ Function Switch ..... RADIO
  - ‡ Mode Switch ..... MONO
  - ‡ Balance Control ..... Center (click position)
  - ‡ Tone Control ..... High
  - ‡ Volume Control ..... Arbitrary

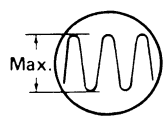
NOTE:
Use an alignment tool with plastic grip for all adjustments.

MW ALIGNMENT

Standard Test Frequency 400Hz and Modulation 30% at AM

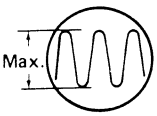
Step	Alignment	Connections		Frequency of Signal Generator	Tuning Dial Setting	Adjustments	Remarks
		INPUT	OUTPUT				
1	Calibration of IF for AM	Connect loop antenna to output terminal of gene-scope. Place loop antenna by bar antenna.	Connect input terminal of gene-scope to Pin 9 of IC2 through capacitor 1μF.	460kHz	Low End	T3 T4 and T5	Obtain symmetrical curve and maximum amplitude. 
2	Calibration of Tuning Range	Connect loop antenna to output of AM signal generator. Place loop antenna 60cm away from bar antenna.	Connect VTVM with 3.2Ω dummy load and oscilloscope to Phones jack.	510kHz		T8	Obtain sine-wave of 400Hz and maximum amplitude. 
3				1,670kHz	High End	TC4	
4	Adjustment of Tracking			600kHz	600kHz	L4-1 (bar ant. coil)	
5				1,400kHz	1,400kHz	TC3 (PVC)	
6	Repeat the above steps until no further change is noted in any of the adjustments.						

LW ALIGNMENT

Step	Alignment	Connections		Frequency of Signal Generator	Tuning Dial Setting	Adjustments	Remarks
		INPUT	OUTPUT				
1	Calibration of Tuning Range	Connect loop antenna to output of AM signal generator. Place loop antenna 60cm away from bar antenna.	Connect VTVM with 3.2Ω dummy load and oscilloscope to Phones jack.	145kHz	Low End	T9	Obtain sine-wave of 400Hz and maximum amplitude. 
2				365kHz	High End	TC5	
3	Adjustment of Tracking			170kHz	170kHz	L4-2 (bar ant. coil)	
4				310kHz	310kHz	TC2	
5	Repeat the above steps until no further change is noted in any of the adjustments.						

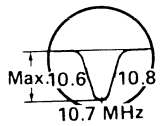
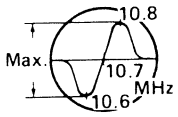
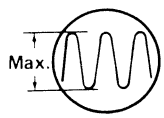
TUNER ADJUSTMENT (Continued)

SW ALIGNMENT

Step	Alignment	Connections		Frequency of Signal Generator	Tuning Dial Setting	Adjustments	Remarks
		INPUT	OUTPUT				
1	Calibration of Tuning Range	Connect AM signal generator to antenna terminals (TP1 and TP2) through dummy antenna (30Ω/10pF).	Connect VTVM with 3.2Ω dummy load and oscilloscope to Phones jack.	5.7MHz	Low End	T7	Obtain sine-wave of 400Hz and maximum amplitude. 
2				18.7MHz	High End	TC3	
3	Adjustment of Tracking			6.5MHz	6.5MHz	T6	
4				17.0MHz	17.0MHz	TC1	
5	Repeat the above steps until no further change is noted in any of the adjustments.						

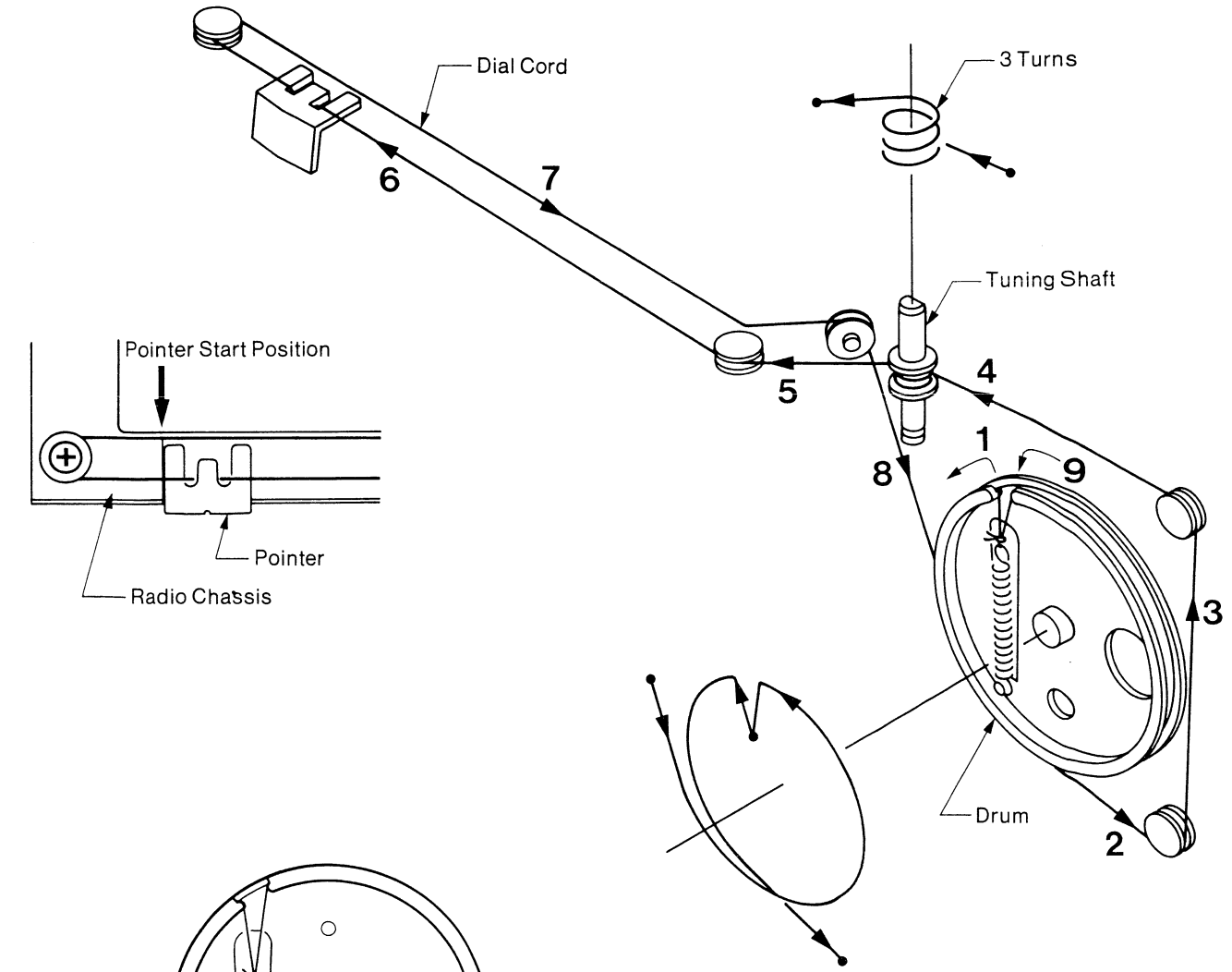
FM ALIGNMENT

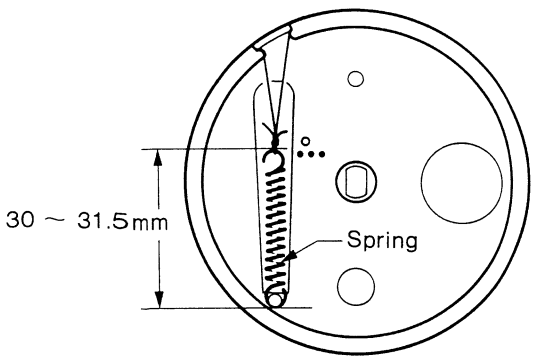
Standard test frequency 400Hz and deviation 22.5kHz

Step	Alignment	Connections		Frequency of Signal Generator	Tuning Dial Setting	Adjustments	Remarks
		INPUT	OUTPUT				
1	Calibration of IF	Place output of gene-scope to Pin 3 of IC1 through capacitor 10pF.	Connect input terminal of gene-scope to Pin 9 of IC2 through capacitor 1μF.	10.7MHz	Low End	Turn T2(blue core) fully counter-clockwise and adjust T1.	Obtain symmetrical curve and maximum amplitude. 
2						T2 (blue core)	Obtain **S** curve and maximum amplitude. 
3	Calibration of Tuning Range	Connect FM signal generator to antenna terminals (TP1 and TP2) through dummy antenna (75Ω, unbalanced type).	Connect VTVM with 3.2Ω dummy load and oscilloscope to Phones jack.	87.35MHz		L2	Obtain sine-curve and maximum amplitude. 
4				108.25MHz	High End	TC2 (PVC)	
5	Adjustment of Tracking			90MHz	90MHz	L1	
6				106MHz	106MHz	TC1 (PVC)	
7	Repeat the above steps until no further change is noted in any of the adjustments.						

DIAL CORD STRINGING

1. Attach the Drum on the Radio Chassis as illustrated and fully turn the shaft of the variable capacitor counter-clockwise.
2. Mount the Radio Tuner P.C.Board on the Radio Chassis and then, insert the shaft of the variable capacitor into the Drum.
3. Tie the Dial Cord of length 1,100mm and diameter ϕ0.5 to the Spring and hook the Spring to the illustrated position of the Drum.
4. Engage the Dial Cord as illustrated in the following order. Spring → Drum → Roller A → Roller B → Tuning Shaft (3 turns) → Roller C → Roller D → Roller E → Drum → Spring
5. Hook the Dial Cord to the Spring and tie the Cord where the spring tip expands to the mark on the Drum as illustrated (Spring length becomes approximately 30 ~ 31.5mm).
6. Secure the place where the Spring is hooked to the Drum and knot in the Dial cord with paint or glue.
7. Turn the Tuning Shaft counter-clckwise until it stops and then, put the left side of the Pointer together with the scatch mark on the Radio Chassis.
8. Attach the Pointer to the Dial Cord and secure the Pointer with lacquer or glue.





PARTS LIST

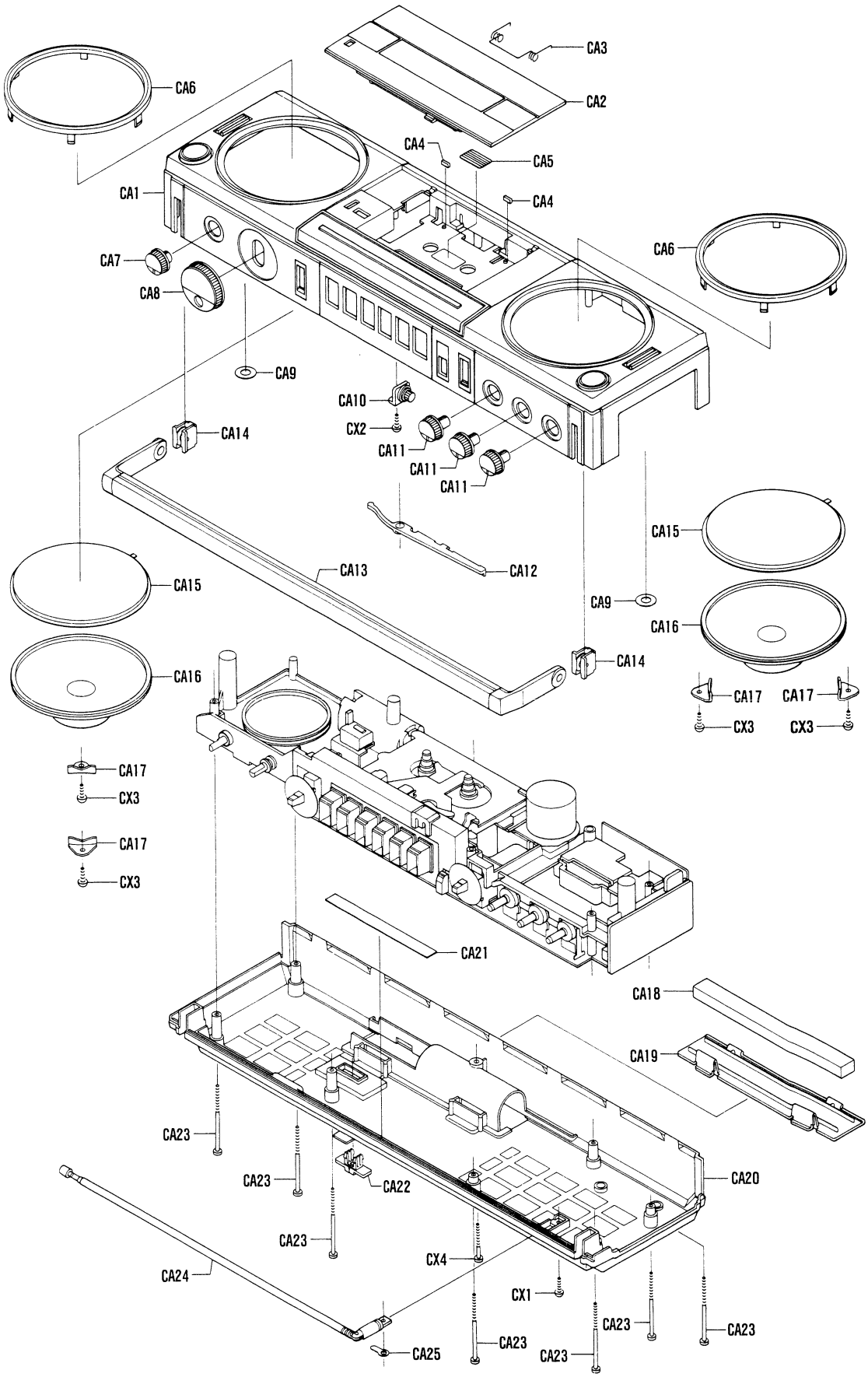
Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	141 6 1419 69103	Individual Carton	1
	141 6 1449 88800	Case Styrofoam, Right	1
	141 6 1449 88900	Case Styrofoam, Left	1
	141 6 2519 17190	Poly Cover	1
	141 6 4559 00100	Serial No. Sheet	3
	ACCESSORIES		
	4 2419 72222	Cassette	1
⚠	4 2439 70602	Power Cord	1
	141 6 2519 11022	Poly Cover 110 x 220	1
	141 6 2519 18025	Poly Cover 180 x 250	1
	141 6 4729 37314	Caution Label	1
	141 6 4729 37377	Caution Label	1
	141 6 4799 02800	Label	1
	141 6 4519 07700	Warranty Card	1
	142 6 4119 31871	Instruction Book	1
	CABINET		
	4 2359 76370	Receptacle	5
	4 2359 70990	Socket Pin RT	1
CA1	141 0 1119 94505	Cabinet Top Assy	1
	Following Speakers are included in Cabinet Top		
	4 1519 71211	Speaker (300Ω) [SP102 & SP202]	2
CA2	141 0 1249 25802	Lid Cassette Assy	1
CA3	141 2 8529 06200	Spring Lid Cassette	1
CA4	141 2 1519 24700	Reflector	1
CA5	141 2 1559 08200	Ring Speaker	2
CA6	141 2 1639 55000	Knob Fine Tuning	1
CA7	141 2 1639 54800	Knob Tuning	1
CA8	141 2 4469 31700	Cushion Mike	2
CA9	141 0 5519 08500	Gear Eject Assy	1
CA10	141 2 1639 54900	Knob Volume	3
CA11	141 2 7419 77200	Lock Lid Cassette	1
CA12	141 0 1719 10900	Handle Assy	1
CA13	141 2 2719 18500	Holder Handle	2
CA14	141 2 1149 31900	Screen Speaker	2
CA15	4 1519 71660	Speaker (3.2Ω) [SP101]	1
CA15	4 1519 71660	Speaker (3.2Ω) [SP201]	1
CA16	141 2 3729 00801	Bracket FIX Speaker	4
CA17	141 2 4469 45601	Cushion	1
CA18	141 2 1339 31000	Lid Battery	1
CA19	141 2 1119 92206	Cabinet Bottom	1
CA20	141 2 2899 30800	Sheet Lid Cassette	1
CA21	141 2 1649 12900	Knob Band Select	1
CA22	141 2 4219 09801	Screw	7
CA23	4 2449 70330	Rod Antenna	1
CA24	141 2 4729 03001	Lug	1
CX1	101 3 1302 60613	Screw, Pan Hd., +M2.6x6	1
CX2	102 3 1302 60811	Screw, Pan Hd. Tapping-1, +M2.6x8	1
CX3	102 3 1303 01011	Screw, Pan Hd. Tapping-1, +M3.0x10	4
CX4	143 3 1303 03013	Screw, Pan Hd. Tapping-B, +M3.0x30	1
	RADIO CHASSIS		
	141 2 4729 05300	Wire Band	3
DC1	141 2 3119 19702	Chassis Radio	1
DC2	4 1539 70661	Microphone [BM101 &BM201]	2
DC3	141 2 5389 03400	Drum	1
DC4	141 2 8519 78000	Spring Stop	1
DC5	141 2 8119 12201	Counter	1
DC6	141 2 5649 06000	Belt Counter	1

Ref. No.	Part No.	Description	Q'ty
DC7	141 2 8139 10600	Bracket Counter	1
DC8	141 2 3519 57700	Bracket Arm Eject	1
DC9	141 2 8519 29400	SPG Stop Lever	1
DC10	141 0 1939 00454	Power Supply P.C.B. Assy [**See PCB3**]	1
DC11	141 2 4219 10400	Poly Wave Screw	1
DC12	141 2 3829 20800	SPG Battery	1
DC13	141 2 3829 06700	Terminal BAT Anode	1
DC14	141 2 3829 18000	SPG Terminal	1
DC15	141 2 5119 09400	Pointer	1
DC16	141 2 1449 56900	Plate Dial	1
DC17	141 2 4219 14000	Screw	3
DC18	141 2 5519 03300	Roller Dial A	3
DC19	141 2 8259 05900	Roller Dial	2
DC20	4 2249 70710	Fine Tuner [FT1]	1
DC21	141 2 7519 58400	Shaft Tuning	1
DC22	141 0 1939 02110	Switch P.C.B. Assy [**See PCB4**]	1
DC23	141 2 4469 39300	Cushion Switch	2
DC24	141 2 2449 41700	Screen Switch	2
DC25	141 2 1629 06900	Knob Band Select	1
DC26	141 0 1939 02141	Radio Tuner P.C.B. Assy [**See PCB2**]	1
DC27	141 0 1939 00460	LED Indicator P.C.B. Assy [**See PCB5**]	1
DC28	141 0 1939 00443	Amplifier P.C.B. Assy [**See PCB1**]	1
DC29	141 2 1629 06800	Knob Function	1
DY1	628 3 0911 00000	String 0.5	1
DY2	102 3 1302 60611	Screw, Pan Hd. Tapping-1, +M2.6x6	2
DY3	102 3 1302 60811	Screw, Pan Hd. Tapping-1, +M2.6x8	4
DY4	102 3 1302 61011	Screw, Pan Hd. Tapping-1, +M2.6x10	1
DY5	102 3 1302 61411	Screw, Pan Hd. Tapping-1, +M2.6x14	3
DY6	112 3 1303 00040	E Ring, M3.0	1

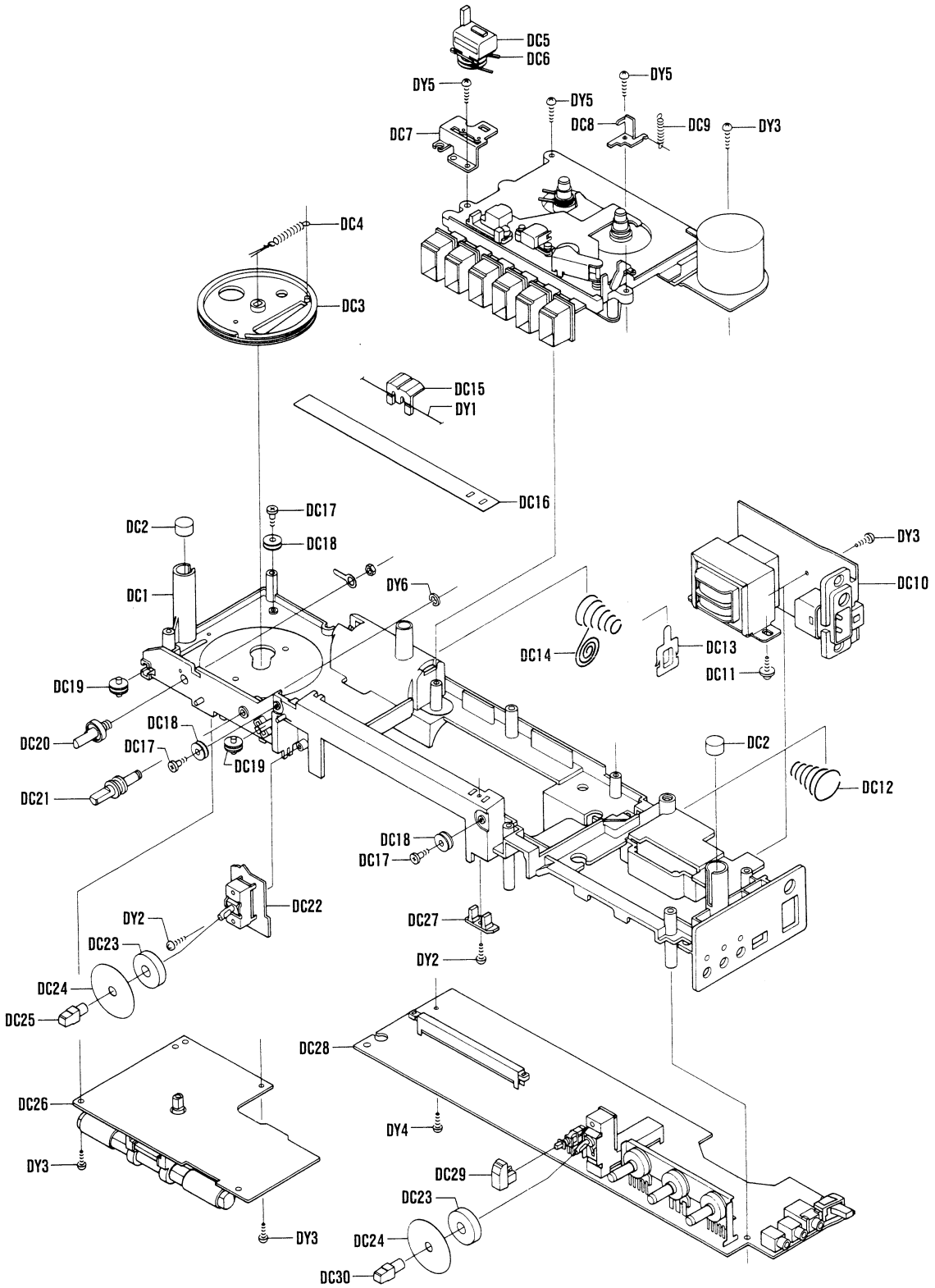
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

CABINET EXPLODED VIEW



RADIO CHASSIS EXPLODED VIEW



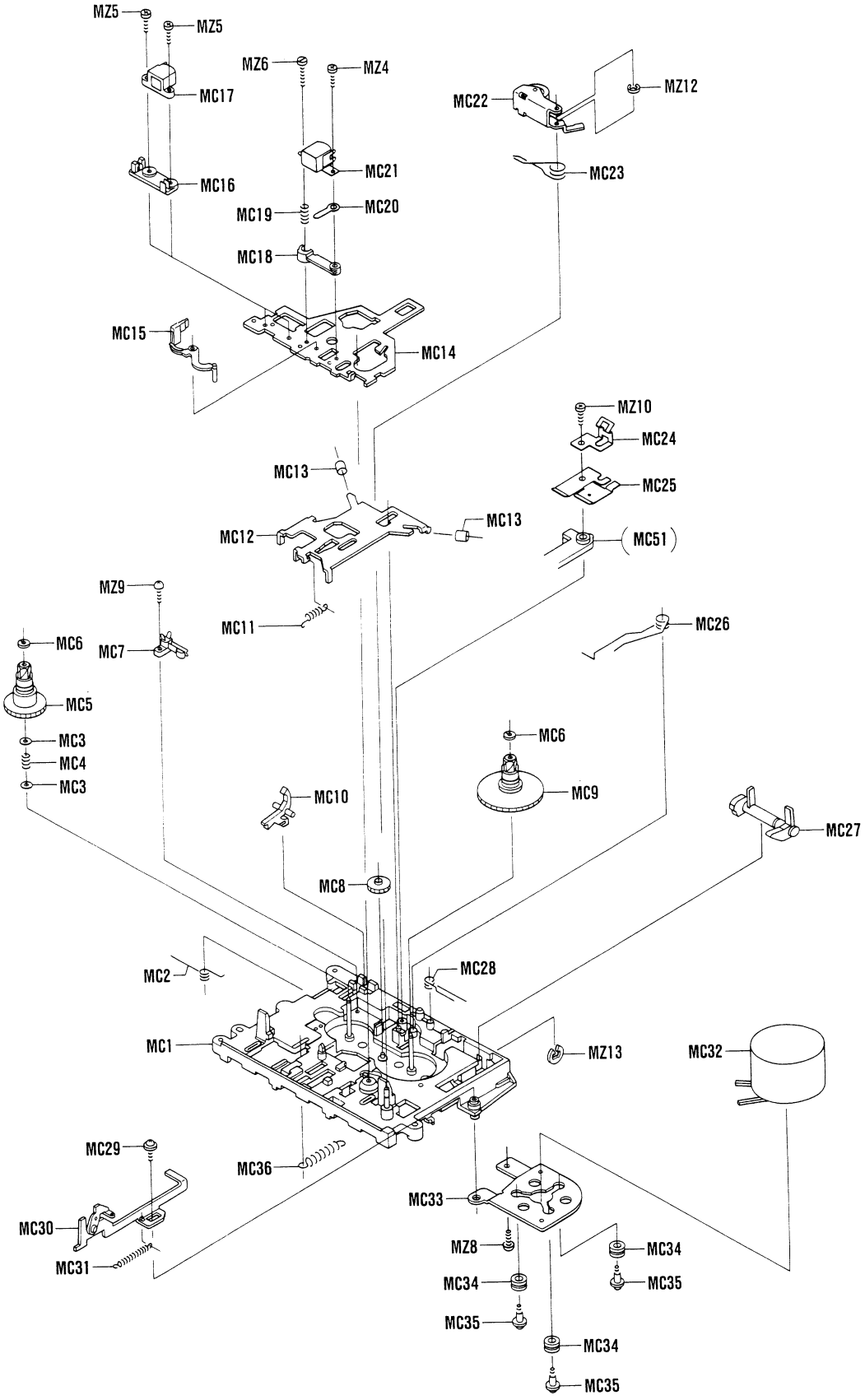
MECHANISM PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	MECHANISM		
MC1	141 0 3119 19902	Chassis Assy	1
MC2	141 2 8519 97300	Spring Interlock	1
MC3	141 2 4539 09400	Washer	3
MC4	141 2 8559 01800	Spring Supply	1
MC5	141 0 5319 05400	Supply Reel Assy	1
MC6	141 2 4539 15700	Washer	2
MC7	4 2319 72121	Switch Leaf (Power) [S8]	1
MC8	141 2 5519 36400	Gear FF	1
MC9	141 0 5319 05301	Take-up Reel Assy	1
MC10	141 2 8419 10400	Lever Interlock	1
MC11	141 2 8549 08700	Spring Brake	1
MC12	141 2 7149 05200	Arm Brake	1
MC13	141 2 4459 25200	Cover Brake	2
MC14	141 2 7319 43203	Base Slide	1
MC15	141 2 7419 79500	Lever Sensor	1
MC16	141 2 3529 36900	Spacer E Head	1
MC17	4 2429 71521	Erase Head [HD2]	1
MC18	141 2 3529 35300	Spacer Head	1
MC19	141 2 8559 04400	Spring Azimuth	1
MC20	141 2 4729 01900	Lug	1
MC21	4 2429 72091	R/P Head [HD1]	1
MC22	141 0 5419 03200	Pinchroller Assy	1
MC23	141 2 8519 97200	Spring Pinchroller	1
MC24	141 2 8539 41102	Spring Cassette	1
MC25	141 2 8539 45200	Spring Cassette	1
MC26	141 2 8529 07300	Spring Arm Idler	1
MC27	141 2 7419 74900	Lever Cassette-up	1
MC28	141 2 8519 96901	Spring Cassette-up	1
MC29	141 2 4219 13201	Screw Washer	1
MC30	141 0 7319 24201	Plate Eject Assy	1
MC31	141 2 8519 38700	SPG Lever Head	1
MC32	4 5279 71173	Motor [M1]	1
MC33	141 2 3789 08700	Bracket Motor	1
MC34	141 2 4459 11800	Cushion Motor	3
MC35	141 2 4219 30100	Screw	3
MC36	141 2 8549 10700	Spring Base Slide	1
MC37	141 2 7319 49300	Plate Lock	1
MC38	141 2 1659 19005	Button Stop	1
MC39	141 2 7319 49500	Rod Stop Eject	1
MC40	141 2 1659 19003	Button Rewind	1
MC41	141 2 7319 49800	Rod Rewind	1
MC42	141 2 7419 75500	Lever Shut Off	1
MC43	141 2 7419 75800	Lever Pause Lock	1
MC44	141 2 8529 05700	Spring Pause Lock	1
MC45	141 2 4539 15800	Washer	2
MC46	141 2 1659 19002	Button Fast Forward	1
MC47	141 2 7319 49700	Rod FF	1
MC48	141 2 1659 19004	Button Pause	1
MC49	141 0 7319 25200	Rod Pause Assy	1
MC50	141 2 4219 12100	Screw Washer	1
MC51	141 0 7439 10400	Arm Idler Assy	1
MC52	141 2 8259 09100	Roller	1
MC53	141 2 4539 12100	Washer Spindle	2
MC54	141 2 5519 36701	Idler Pulley Gear	1
MC55	141 2 5519 36601	Gear Capstan	1
MC56	141 2 8519 98200	Spring Flywheel	1
MC57	141 0 5219 07202	Flywheel Assy	1
MC58	141 2 5649 20900	Belt Capstan	1
MC59	141 0 3519 20100	Support FW Assy	1
MC60	141 2 3769 12100	Spacer Plunger	1
MC61	4 2649 70349	Solenoid [SL1]	1
MC62	141 2 4729 00200	Lug	1
MC63	141 2 8529 07200	Spring Ground	1
MC64	141 2 3519 57100	Bracket Plate	1
MC65	141 2 8529 05401	Spring Rod Pause	1
MC66	141 2 8529 05400	Spring Rod	1
MC67	141 2 8549 10800	Spring Sensor	1
MC68	141 2 8519 25400	SPG Click	1
MC69	141 2 8549 10600	Spring Rod Play	1
MC70	141 2 8529 05600	Spring Stopper REC	1
MC71	141 2 7519 55300	Spindle Lever Lock	1
MC72	141 2 7419 76500	Lever Lock	1
MC73	141 2 8529 05800	Spring Lever Lock	1
MC74	141 2 8519 33000	SPG Lever Lock Index	1
MC75	141 0 7439 09200	Arm Take-up Assy	1
MC76	141 2 4539 05500	Washer	1
MC77	141 2 5519 36500	Gear Take-up	1
MC78	141 2 8429 06100	Lever Record Switch	1
MC79	141 2 8519 78000	Spring Stop	1
MC80	4 2319 74990	Leaf Switch (AMSS Switch B) [S7]	1
MC81	4 2319 72570	Leaf Switch (AMSS Switch A) [S6]	1
MC82	141 2 7319 49900	Rod Play	1
MC83	141 2 1659 19001	Button Play	1
MC84	141 2 7319 50000	Rod Record	1
MC85	141 2 1659 19000	Button Record	1
MC86	141 2 7439 26200	Lever Stopper Record	1
MC87	141 2 4539 17200	Washer	1
MZ1	101 3 1302 00411	Screw, Pan Hd., +M2.0x4	1
MZ2	101 3 1302 00811	Screw, Pan Hd., +M2.0x8	1
MZ3	101 3 1702 00411	Screw, Bind Hd., +M2.0x4	1
MZ4	101 3 1702 00611	Screw, Bind Hd., +M2.0x6	1
MZ5	101 3 1702 00811	Screw, Bind Hd., +M2.0x8	2
MZ6	101 3 3702 00811	Screw, Bind Hd., ±M2.0x8	1
MZ7	102 3 1302 00611	Screw, Pan Hd. Tapping-1, +M2.0x6	1
MZ8	102 3 1302 60811	Screw, Pan Hd. Tapping-1, +M2.6x8	1
MZ9	103 3 1302 00811	Screw, Pan Hd. Tapping-2, +M2.0x8	3
MZ10	143 3 1702 60811	Screw, Bind Hd. Tapping-B, +M2.6x8	4
MZ11	112 3 1301 20082	E Ring, M1.2	1
MZ12	112 3 1302 00082	E Ring, M2.0	1
MZ13	112 3 1304 00082	E Ring, M4.0	1
MZ14	112 3 1706 30040	Grip Ring, M6.3	1

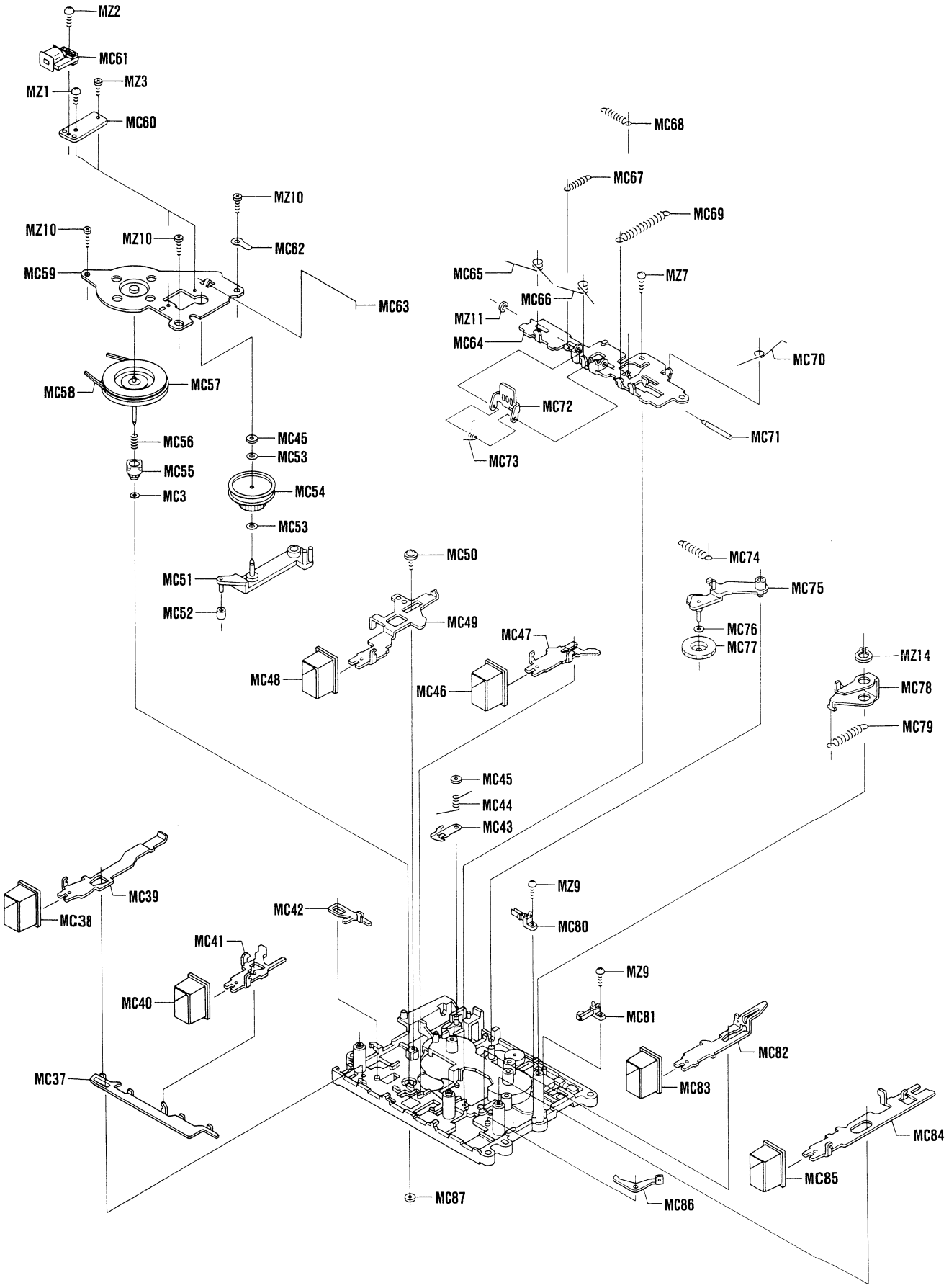
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

MECHANISM EXPLODED VIEW



MECHANISM EXPLODED VIEW (Continued)



P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description			Q'ty
	AMPLIFIER P.C.B. ASSY				
PCB1	141 0 1939 00442	Amplifier P.C.B. Assy			1
	4 2369 73781	Pin 1P			6
	141 2 3689 08400	Radiator IC (for IC302)			1
	141 2 4729 05000	Staple, 5mm			2
	141 2 4729 04700	Staple, 10mm			25
CN1	4 2359 75986	Connector 5P Assy			1
S3	4 2319 72191	Slide Switch (Record/Play)			1
S4	4 2319 75710	Push Switch (Rec. Mute)			1
S5	4 2319 76350	Lever Switch (Function)			1
S10	4 2319 75590	Slide Switch (Beat Cancel)			1
J1	4 2359 73470	1P Jack (Mike, Lift)			1
J2	4 2359 73470	1P Jack (Mike, Right)			1
J3	4 2359 75701	Jack 5P With Switch (Headphones)			1
L101	4 2729 70480	Coil (33mH)			1
L201	4 2729 70480	Coil (33mH)			1
L301	4 2539 70301	Micro Inductor (100μH)			1
L302	4 2539 70301	Micro Inductor (100μH)			1
T303	4 2589 71460	OSC Trans			1
VR1	4 2229 73851	Rotary Volume Unit			1
IC301	4 2069 71710	IC, M 51544 L			1
IC302	206 5 1384 19220	IC, LA 4192 S			1
Q101	203 5 4921 01270	Transistor, 2SD 1012			1
Q201	203 5 4921 01270	Transistor, 2SD 1012			1
Q301	203 5 5000 53664	Transistor, 2SC 536			1
Q302	203 5 5000 53664	Transistor, 2SC 536			1
Q303	203 5 5000 53664	Transistor, 2SC 536			1
Q304	203 5 5000 53664	Transistor, 2SC 536			1
Q305	203 5 5083 33160	Transistor, 2SC 3331			1
Q306	203 5 5000 53664	Transistor, 2SC 536			1
Q307	203 5 4570 73460	Transistor, 2SD 734			1
Q308	203 5 4570 73460	Transistor, 2SD 734			1
D101	202 5 2810 44210	Diode, DS 442			1
D102	202 5 2810 44210	Diode, DS 442			1
D103	202 5 2810 44210	Diode, DS 442			1
D201	202 5 2810 44210	Diode, DS 442			1
D202	202 5 2810 44210	Diode, DS 442			1
D203	202 5 2810 44210	Diode, DS 442			1
D301	202 5 2450 13540	Diode, DS 135 D			1
D302	202 5 3210 06213	Zener Diode, GZA6.2Z			1
D303	202 5 9600 44610	Diode, DS 446			1
D304	202 5 2810 44210	Diode, DS 442			1
D305	202 5 2810 44210	Diode, DS 442			1
C101	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C102	CC2 2 3500 KE00C	Ceramic	0.022μF	50V ±10%	1
C104	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C105	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C106	CC2 2 0500 KD00C	Ceramic	22pF	50V ±10%	1
C107	CI1 2 2250 KE00C	Boundary	0.0012μF	25V ±10%	1
C108	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C109	CM33 3500 K00SV	Mylar	0.033μF	50V ±10%	1
C110	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C111	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C112	CC2 7 2500 KE00C	Ceramic	0.0027μF	50V ±10%	1
C113	CM47 3500 K00SV	Mylar	0.047μF	50V ±10%	1
C114	CD4 7 6100 0001V	Electrolytic	47μF	10V	1
C115	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C116	CM15 4500 K00SV	Mylar	0.15μF	50V ±10%	1
C117	CD1 0 863A 0001V	Electrolytic	1000μF	6.3V	1
C118	CC1 0 2500 KE00C	Ceramic	0.001μF	50V ±10%	1
C119	CC3 3 2500 KE00C	Ceramic	0.0033μF	50V ±10%	1
C120	CM47 3500 K00SV	Mylar	0.047μF	50V ±10%	1
C121	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C122	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1

Ref. No.	Part No.	Description			Q'ty
C201	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C202	CC2 2 3500 KE00C	Ceramic	0.022μF	50V ±10%	1
C204	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C205	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C206	CC2 2 0500 KD00C	Ceramic	22pF	50V ±10%	1
C207	CI1 2 2250 KE00C	Boundary	0.0012μF	25V ±10%	1
C208	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C209	CM33 3500 K00SV	Mylar	0.033μF	50V ±10%	1
C210	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C211	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C212	CC2 7 2500 KE00C	Ceramic	0.0027μF	50V ±10%	1
C213	CM47 3500 K00SV	Mylar	0.047μF	50V ±10%	1
C214	CD4 7 6100 0001V	Electrolytic	47μF	10V	1
C215	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C216	CM15 4500 K00SV	Mylar	0.15μF	50V ±10%	1
C217	CD1 0 863A 0001V	Electrolytic	1000μF	6.3V	1
C218	CC1 0 2500 KE00C	Ceramic	0.001μF	50V ±10%	1
C219	CC3 3 2500 KE00C	Ceramic	0.0033μF	50V ±10%	1
C220	CM47 3500 K00SV	Mylar	0.047μF	50V ±10%	1
C221	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C222	CC3 3 1500 KE00C	Ceramic	330pF	50V ±10%	1
C301	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C302	CD4 7 7100 0001V	Electrolytic	470μF	10V	1
C303	CD3 3 6100 0001V	Electrolytic	33μF	10V	1
C304	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C305	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C306	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C307	CD4 7 6160 0001V	Electrolytic	47μF	16V	1
C308	CD3 3 6160 0001V	Electrolytic	33μF	16V	1
C309	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C310	CD2 2 7100 0001V	Electrolytic	220μF	10V	1
C311	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C312	CD2 2 4500 0001V	Electrolytic	0.22μF	50V	1
C313	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C314	CD2 2 6100 0001V	Electrolytic	22μF	10V	1
C315	CD4 7 6100 0001V	Electrolytic	47μF	10V	1
C317	CD1 0 6100 0001V	Electrolytic	10μF	10V	1
C318	CD4 7 7100 0001V	Electrolytic	470μF	10V	1
C319	CD1 0 7100 0001V	Electrolytic	100μF	10V	1
C320	CD2 2 7100 0001V	Electrolytic	220μF	10V	1
C321	CD1 0 8160 0001V	Electrolytic	1000μF	16V	1
C322	CP1 8 2101 J000V	Polypropylen	0.0018μF	100V ±5%	1
C323	CM22 3500 K00SV	Mylar	0.022μF	50V ±10%	1
C324	CM68 2500 K00SV	Mylar	0.0068μF	50V ±10%	1
C325	CM22 3500 K00SV	Mylar	0.022μF	50V ±10%	1
C326	CD2 2 5100 0001V	Electrolytic	2.2μF	10V	1
C327	CM27 3500 K00SV	Mylar	0.027μF	50V ±10%	1
C328	CM47 2500 K00SV	Mylar	0.0047μF	50V ±10%	1
C329	CI2 2 2250 KF00C	Boundary	0.0022μF	25V ±10%	1
C330	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
R101	RD2 2 2251 JN000	Carbon	2.2kΩ	1/4W ±5%	1
R102	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W ±5%	1
R103	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W ±5%	1
R104	RD2 2 2251 JN000	Carbon	2.2kΩ	1/4W ±5%	1
R106	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W ±5%	1
R107	RD1 0 3251 JN000	Carbon	10kΩ	1/4W ±5%	1
R108	RD5 6 3251 JN000	Carbon	56kΩ	1/4W ±5%	1
R109	RD5 6 0251 JN000	Carbon	56Ω	1/4W ±5%	1
R110	RD3 9 2251 JN000	Carbon	3.9kΩ	1/4W ±5%	1
R111	RD2 2 1251 JN000	Carbon	220Ω	1/4W ±5%	1
R112	RD1 0 2251 JN000	Carbon	1kΩ	1/4W ±5%	1
R113	RD3 3 3251 JN000	Carbon	33kΩ	1/4W ±5%	1
R114	RD4 7 2251 JN000	Carbon	4.7kΩ	1/4W ±5%	1
R115	RD2 7 2251 JN000	Carbon	2.7kΩ	1/4W ±5%	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description				Q'ty
R116	RD5 6 0251 JN000	Carbon	56Ω	1/4W	±5%	1
R117	RD4 7 0251 JN000	Carbon	47Ω	1/4W	±5%	1
R118	RD3 3 3251 JS000	Carbon	33kΩ	1/4W	±5%	1
R119	RD3 9 2251 JN000	Carbon	3.9kΩ	1/4W	±5%	1
R120	RD1 0 3251 JN000	Carbon	10kΩ	1/4W	±5%	1
R121	RD1 2 4251 JN000	Carbon	120kΩ	1/4W	±5%	1
R201	RD2 2 2251 JN000	Carbon	2.2kΩ	1/4W	±5%	1
R202	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W	±5%	1
R203	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W	±5%	1
R204	RD2 2 2251 JN000	Carbon	2.2kΩ	1/4W	±5%	1
R206	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W	±5%	1
R207	RD1 0 3251 JN000	Carbon	10kΩ	1/4W	±5%	1
R208	RD5 6 3251 JN000	Carbon	56kΩ	1/4W	±5%	1
R209	RD5 6 0251 JN000	Carbon	56Ω	1/4W	±5%	1
R210	RD3 9 2251 JN000	Carbon	3.9kΩ	1/4W	±5%	1
R211	RD2 2 1251 JN000	Carbon	220Ω	1/4W	±5%	1
R212	RD1 0 2251 JN000	Carbon	1kΩ	1/4W	±5%	1
R213	RD3 3 3251 JN000	Carbon	33kΩ	1/4W	±5%	1
R214	RD4 7 2251 JN000	Carbon	4.7kΩ	1/4W	±5%	1
R215	RD2 7 2251 JN000	Carbon	2.7kΩ	1/4W	±5%	1
R216	RD5 6 0251 JN000	Carbon	56Ω	1/4W	±5%	1
R217	RD4 7 0251 JN000	Carbon	47Ω	1/4W	±5%	1
R218	RD3 3 3251 JS000	Carbon	33kΩ	1/4W	±5%	1
R219	RD3 9 2251 JN000	Carbon	3.9kΩ	1/4W	±5%	1
R220	RD1 0 3251 JN000	Carbon	10kΩ	1/4W	±5%	1
R221	RD1 2 4251 JN000	Carbon	120kΩ	1/4W	±5%	1
R301	RD2 2 5251 JN000	Carbon	2.2MΩ	1/4W	±5%	1
R302	RD1 0 3251 JN000	Carbon	10kΩ	1/4W	±5%	1
R303	RD5 6 3251 JN000	Carbon	56kΩ	1/4W	±5%	1
R304	RD1 0 1251 JS000	Carbon	100Ω	1/4W	±5%	1
R305	RD1 0 1251 JN000	Carbon	100Ω	1/4W	±5%	1
R306	RD1 0 2251 JN000	Carbon	1kΩ	1/4W	±5%	1
R307	RD2 2 2251 JN000	Carbon	2.2kΩ	1/4W	±5%	1
R308	RD1 0 1251 JN000	Carbon	100Ω	1/4W	±5%	1
R309	RD3 9 1251 JN000	Carbon	390Ω	1/4W	±5%	1
R310	RD3 3 4251 JN000	Carbon	330kΩ	1/4W	±5%	1
R311	RD2 2 2251 JN000	Carbon	2.2kΩ	1/4W	±5%	1
R312	RD1 0 1251 JN000	Carbon	100Ω	1/4W	±5%	1
R313	RD3 9 4251 JN000	Carbon	390kΩ	1/4W	±5%	1
R314	RD3 9 2251 JN000	Carbon	3.9kΩ	1/4W	±5%	1
R315	RD3 9 1251 JN000	Carbon	390Ω	1/4W	±5%	1
R317	RD3 9 3251 JN000	Carbon	39kΩ	1/4W	±5%	1
R319	RD1 0 2251 JN000	Carbon	1kΩ	1/4W	±5%	1
R320	RD3 9 3251 JN000	Carbon	39kΩ	1/4W	±5%	1
R321	RD2 7 2251 JN000	Carbon	2.7kΩ	1/4W	±5%	1
R322	RD4 7 1251 JN000	Carbon	470Ω	1/4W	±5%	1
R323	RD3 3 2251 JN000	Carbon	3.3kΩ	1/4W	±5%	1
R324	RD1 0 3251 JN000	Carbon	10kΩ	1/4W	±5%	1
R325	RD3 3 0251 JN000	Carbon	33Ω	1/4W	±5%	1
R326	RD6 8 1251 JN000	Carbon	680Ω	1/4W	±5%	1
R327	RD5 6 A251 JN000	Carbon	5.6Ω	1/4W	±5%	1
R328	RD3 3 1251 JN000	Carbon	330Ω	1/4W	±5%	1
R329	RD1 0 2251 JS000	Carbon	1kΩ	1/4W	±5%	1
R330	RD5 6 A251 JN000	Carbon	5.6Ω	1/4W	±5%	1
R331	RD4 7 2251 JN000	Carbon	4.7kΩ	1/4W	±5%	1

RADIO TUNER P.C.B. ASSY

PCB2	141 0 1939 02140	Radio Tuner P.C.B. Assy	1
	4 2369 70740	Pin RT	5
	141 2 4729 04700	Staple, 10mm	6
	141 2 4729 05000	Staple, 5mm	11
CN1	4 2369 73380	Connector 5P	1
S1	4 2319 73861	Slide Switch (Band Select)	1

Ref. No.	Part No.	Description				Q'ty
L1	4 2599 70810	RF Coil				1
L2	4 2589 71960	FM OSC Trans				1
L3	4 2659 70241	Loading Coil				1
L4	4 2579 71480	Bar Antenna				1
L5	4 2539 71021	Band Pass Filter				1
T1	4 2569 70301	IFT				1
T2	4 2569 71340	IFT FM				1
T3	4 2569 71030	IFT 455kHz				1
T4	4 2569 71022	IFT 455kHz				1
T5	4 2569 71120	IFT AM				1
T6	4 2579 70722	Antenna Coil				1
T7	4 2589 71422	OSC Trans SW				1
T8	4 2589 71410	OSC Trans				1
T9	4 2589 71400	OSC Trans				1
P1	4 2229 73053	Potentiometer (B-5kΩ)				1
CF1	4 2539 70184	Ceramic Filter				1
CF2	4 2539 70184	Ceramic Filter				1
TC1	4 2249 70580	Trimmer Condenser				1
TC2	4 2249 70590	Trimmer Condenser				1
TC3	4 2249 70580	Trimmer Condenser				1
TC4	4 2249 70580	Trimmer Condenser				1
TC5	4 2249 70590	Trimmer Condenser				1
PVC1	4 2249 70791	Variable Condenser				1
IC1	4 2069 71842	IC, BA 4404				1
IC2	4 2069 71730	IC, TA 7640 AP				1
IC3	4 2069 71660	IC, TA 7343 P				1
Q1	4 2039 70460	Transistor, 2SC 1675 K				1
D1	202 5 2810 44210	Diode, DS 442				1
C1	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C2	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C3	CC2 2 0500 JD00C	Ceramic	22pF	50V	±5%	1
C4	CC1 8 0500 JD00C	Ceramic	18pF	50V	±5%	1
C5	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C6	CC5 0 A500 CD00C	Ceramic	5pF	50V	±0.2pF	1
C7	CC1 5 0500 JD00C	Ceramic	15pF	50V	±5%	1
C8	CC1 0 0500 JD00C	Ceramic	10pF	50V	±5%	1
C9	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C10	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C11	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C12	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C13	CC4 7 1500 KE00C	Ceramic	470pF	50V	±10%	1
C14	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C15	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C16	CD1 0 6100 0000V	Electrolytic	10μF	10V		1
C17	CD2 2 6100 0000V	Electrolytic	22μF	10V		1
C18	CC6 0 A500 CD00C	Ceramic	6pF	50V	±0.2pF	1
C19	CD1 0 5100 0000V	Electrolytic	1μF	10V		1
C20	CD1 0 5100 0000V	Electrolytic	1μF	10V		1
C21	CD3 3 5100 0000V	Electrolytic	3.3μF	10V		1
C22	CS1 0 2500 J010V	Polystyroul	0.001μF	50V	±5%	1
C23	CD1 0 6100 0000V	Electrolytic	10μF	10V		1
C24	CI1 0 3250 KE00C	Boundary	0.01μF	25V	±10%	1
C25	CI1 0 3250 KE00C	Boundary	0.01μF	25V	±10%	1
C26	CD1 0 4500 0000V	Electrolytic	0.1μF	50V		1
C27	CD1 0 4500 0000V	Electrolytic	0.1μF	50V		1
C28	CI5 6 2250 KE00C	Boundary	0.0056μF	25V	±10%	1
C29	CI5 6 2250 KE00C	Boundary	0.0056μF	25V	±10%	1
C30	CI2 2 3250 KE00C	Boundary	0.022μF	25V	±10%	1
C31	CD4 7 7100 0000V	Electrolytic	470μF	10V		1
C32	CC1 0 2500 KE00R	Ceramic	0.001μF	50V	±10%	1
C33	CI2 2 3160 XG00R	Boundary	0.022μF	16V	+40,-20%	1
C34	CC1 5 0500 JD00C	Ceramic	15pF	50V	±5%	1
C36	CC1 0 0500 JD00C	Ceramic	10pF	50V	±5%	1
C37	CC2 7 0500 JD00C	Ceramic	27pF	50V	±5%	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description			Q'ty
C38	CC1 0 0500 JD00C	Ceramic	10pF	50V ±5%	1
C39	CC5 0 A500 CD00C	Ceramic	5pF	50V ±0.2pF	1
C40	CP3 1 2101 J002V	Polypropylen	0.0031μF	100V ±5%	1
C41	CP3 6 1101 J002V	Polypropylen	360pF	100V ±5%	1
C42	CP2 0 1101 J002V	Polypropylen	200pF	100V ±5%	1
C43	CC2 0 0500 JD00C	Ceramic	20pF	50V ±5%	1
C44	CC1 8 0500 JD00C	Ceramic	18pF	50V ±5%	1
C45	CC1 0 1500 KE00C	Ceramic	100pF	50V ±10%	1
C46	CI2 2 3160 XG00R	Boundary	0.022μF	16V +40,-20%	1
C47	CI2 2 3250 KE00C	Boundary	0.022μF	25V ±10%	1
C48	CI2 2 3250 KE00C	Boundary	0.022μF	25V ±10%	1
C49	CI2 2 3160 XG00R	Boundary	0.022μF	16V +40,-20%	1
C50	CI3 3 2250 KE00C	Boundary	0.0033μF	25V ±10%	1
C51	CI3 3 2250 KE00C	Boundary	0.0033μF	25V ±10%	1
C52	CC2 2 3500 KEX0C	Ceramic	0.022μF	50V ±10%	1
R1	RP1 0 0121 JH000	Carbon	10Ω	1/8W ±5%	1
R2	RP2 2 1121 JH000	Carbon	220Ω	1/8W ±5%	1
R3	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R4	RP3 3 4121 JH000	Carbon	330kΩ	1/8W ±5%	1
R5	RD3 3 4251 JM000	Carbon	330kΩ	1/4W ±5%	1
R6	RP3 3 4121 JH000	Carbon	330kΩ	1/8W ±5%	1
R7	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R8	RP4 7 0121 JH000	Carbon	47Ω	1/8W ±5%	1
R9	RP4 7 0121 JH000	Carbon	47Ω	1/8W ±5%	1
R10	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R11	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R12	RP5 6 1121 JH000	Carbon	560Ω	1/8W ±5%	1
R13	RP1 5 4121 JH000	Carbon	150kΩ	1/8W ±5%	1
R14	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W ±5%	1
R15	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W ±5%	1
R16	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R17	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R18	RP4 7 0121 JH000	Carbon	47Ω	1/8W ±5%	1
R19	RP3 3 3121 JH000	Carbon	33kΩ	1/8W ±5%	1
R20	RP3 3 3121 JH000	Carbon	33kΩ	1/8W ±5%	1
R21	RP1 0 1121 JH000	Carbon	100Ω	1/8W ±5%	1
R22	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R23	RP1 0 0121 JH000	Carbon	10Ω	1/8W ±5%	1
R24	RP3 3 0121 JH000	Carbon	33Ω	1/8W ±5%	1
R25	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R26	RP4 7 4121 JH000	Carbon	470kΩ	1/8W ±5%	1
R27	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R28	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R29	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R30	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1

POWER SUPPLY P.C.B. ASSY

PCB3	141 0 1939 00453	Power Supply P.C.B. Assy			1
	4 2359 70910	Holder Fuse			2
	141 2 4359 21300	Socket Cover			1
	141 2 4729 04700	Staple, 10mm			1
S9	⚠ 4 2319 75770	Rotary Switch (Voltage Selct)			1
J4	⚠ 4 2359 73682	AC DC Power Socket			1
T501	⚠ 4 2519 73881	Power Trans EV2			1
F501	⚠ 4 2349 70140	Fuse (T 1A)			1
D501	202 5 2320 13110	Diode, DS 131 A			1
D502	202 5 2320 13210	Diode, DS 132 A			1
C501	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
C502	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
C503	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
C504	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
C505	CD2 2 8160 0001V	Electrolytic	2200μF	16V	1

Ref. No.	Part No.	Description	Q'ty
	SWITCH P.C.B. ASSY		
PCB4	141 0 1939 02110	Switch P.C.B. Assy	1
	4 2262 15340	PCB, Switch	1
S2	4 2319 75720	Lever Switch Zpzt (FM Mode)	1
	LED INDICATOR P.C.B. ASSY		
PCB5	141 0 1939 00460	LED Indicator P.C.B. Assy	1
	4 2269 39410	PCB, LED	1
D401	4 2029 71420	LED, SLP 155 B (REC./Battery)	1
D402	4 2029 71420	LED, SLP 155 B (FM Stereo)	1

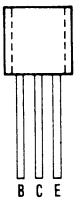
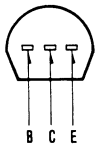
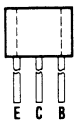
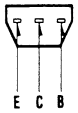
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

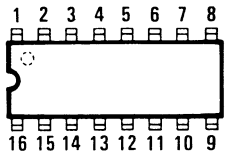
IC & TRANSISTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SC536 2SC1675 2SC3331 2SD734		
2SD1012		

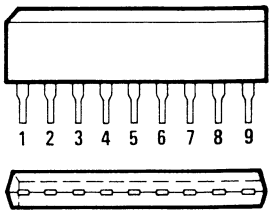
TERMINAL NAME

B → BASE
C → COLLECTOR
E → EMITTER

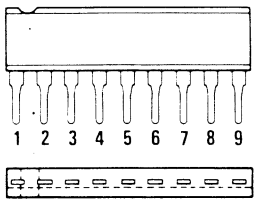
TA7640AP BOTTOM VIEW



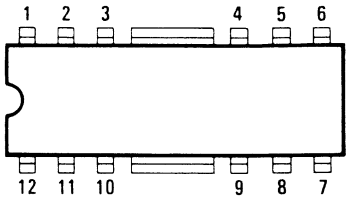
TA7343P FRONT/BOTTOM VIEWS



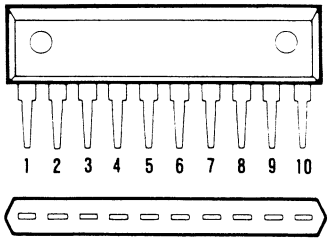
BA4404 FRONT/BOTTOM VIEWS



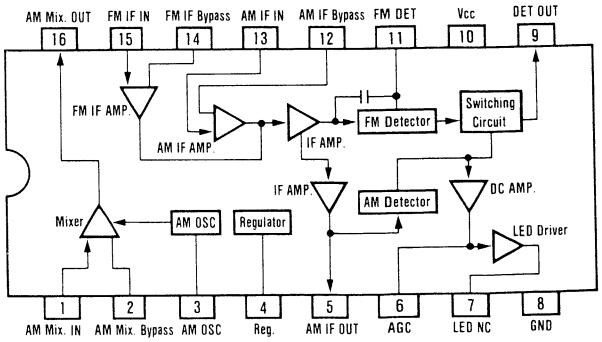
LA4192S BOTTOM VIEW



M51544L FRONT/BOTTOM VIEWS

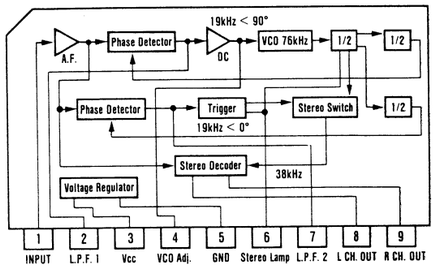


TA7640AP BLOCK DIAGRAM

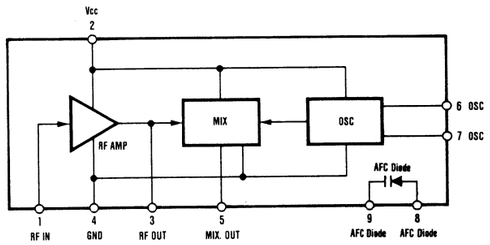


IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

TA7343P BLOCK DIAGRAM



BA4404 BLOCK DIAGRAM



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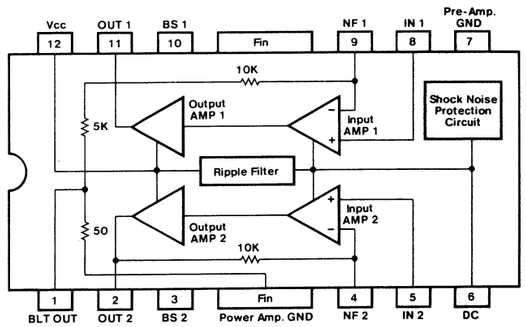
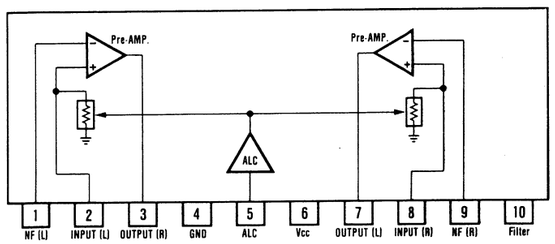
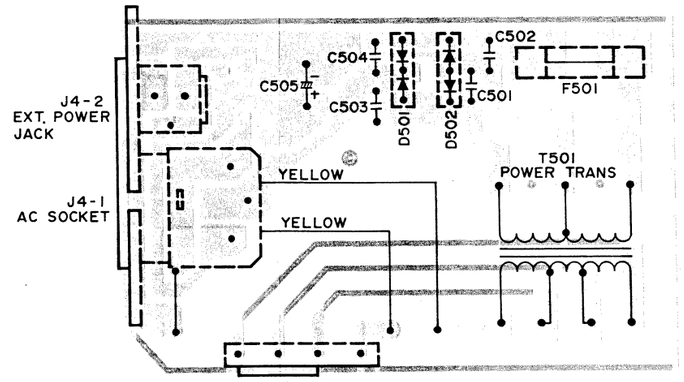


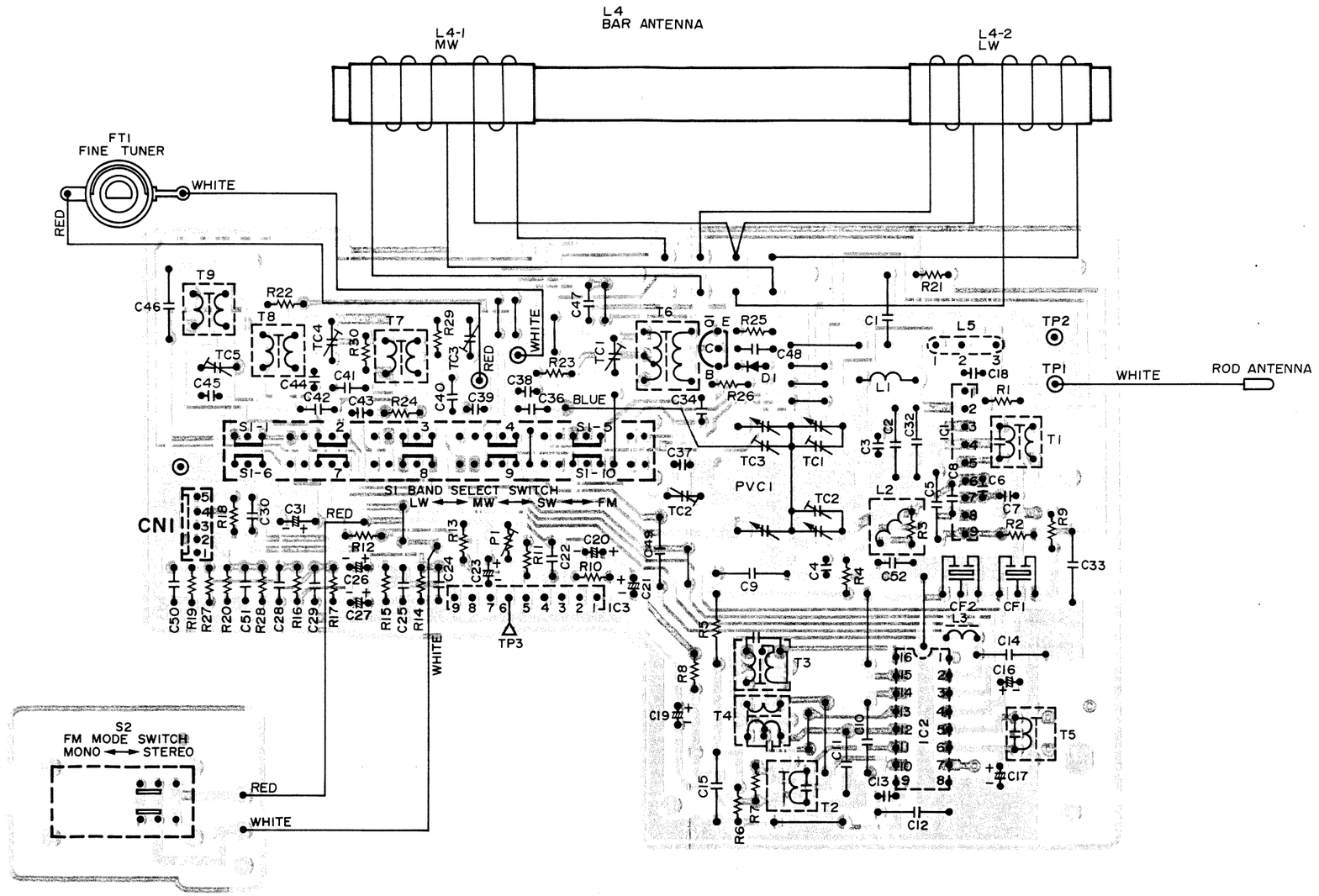
M51544L BLOCK DIAGRAM



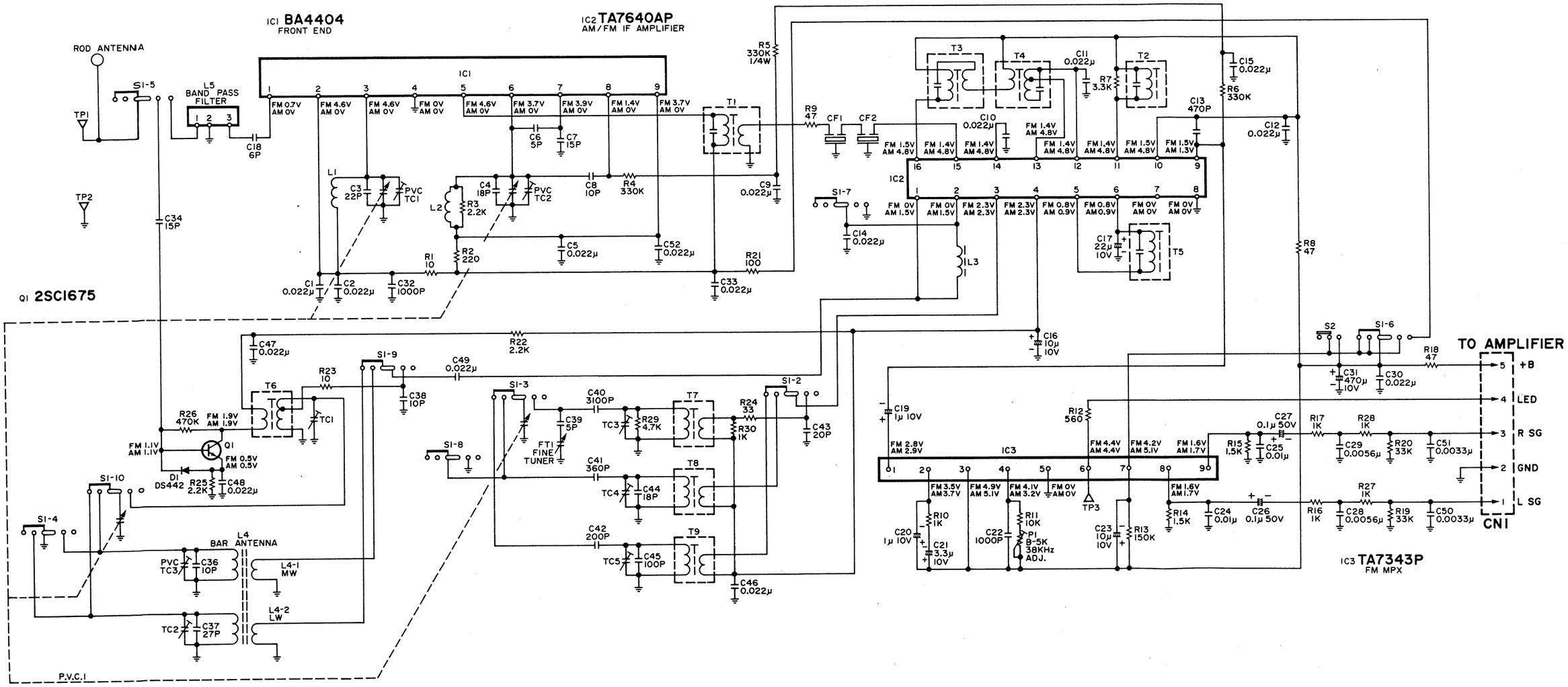
POWER SUPPLY P.C.BOARD



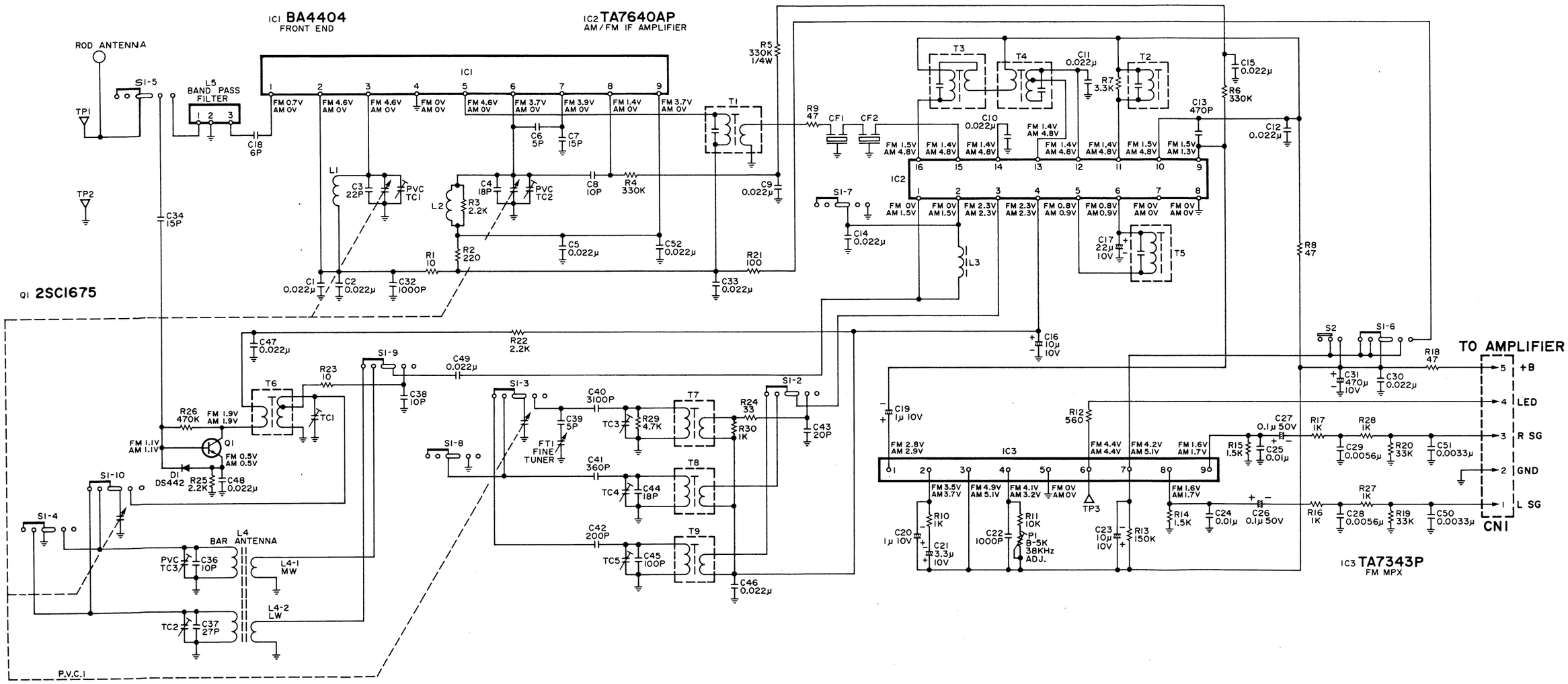
RADIO TUNER P.C.BOARD



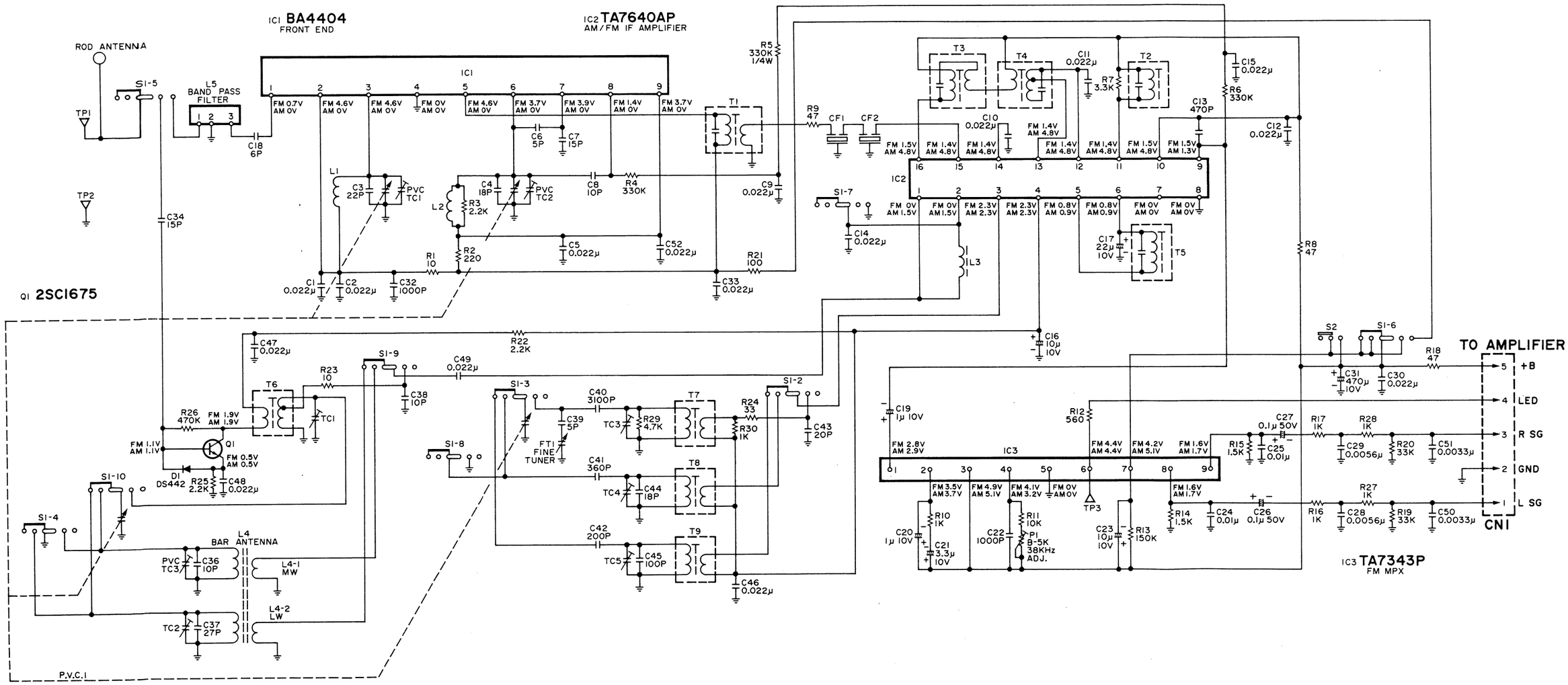
SCHEMATIC DIAGRAM (Tuner)



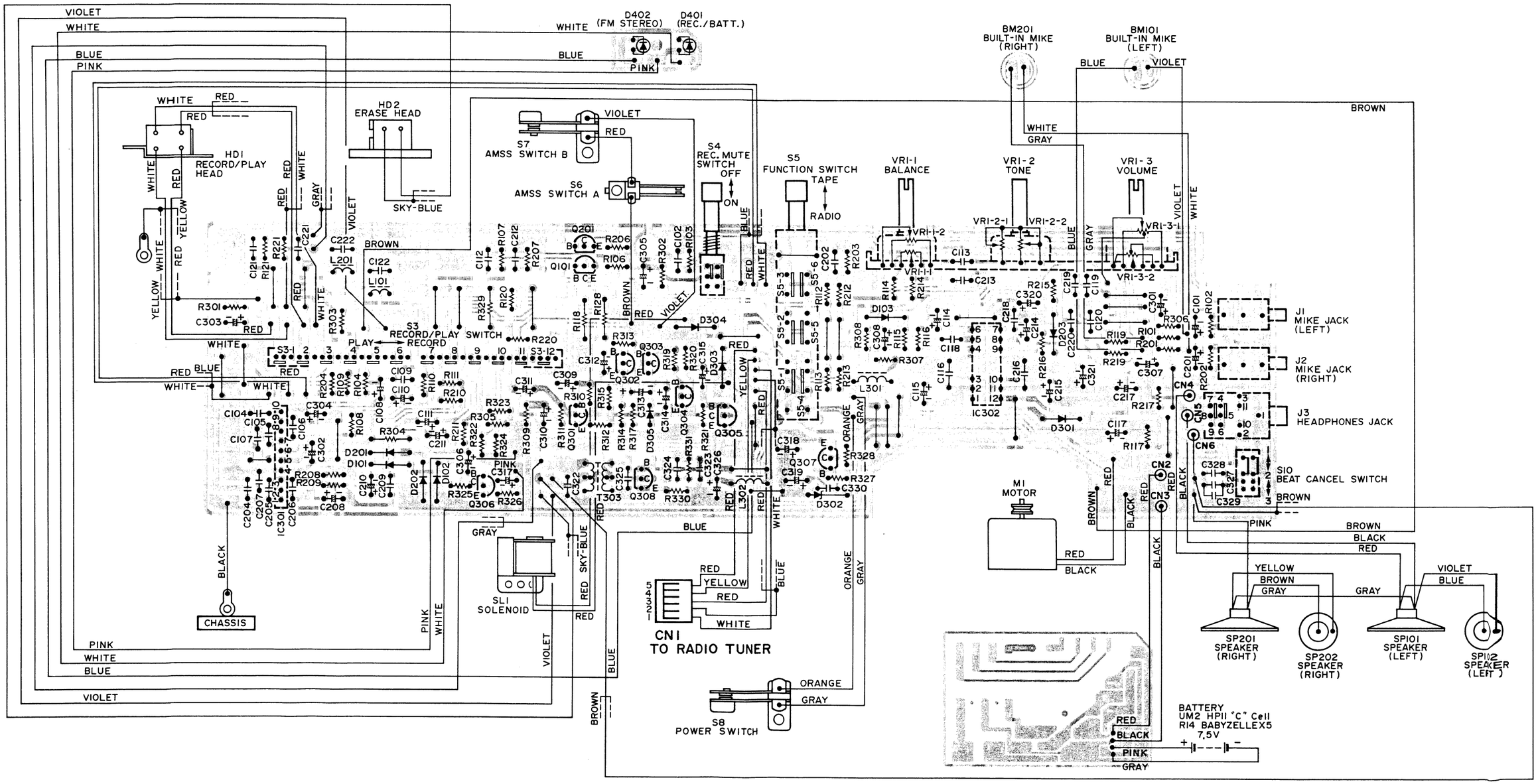
SCHEMATIC DIAGRAM (Tuner)



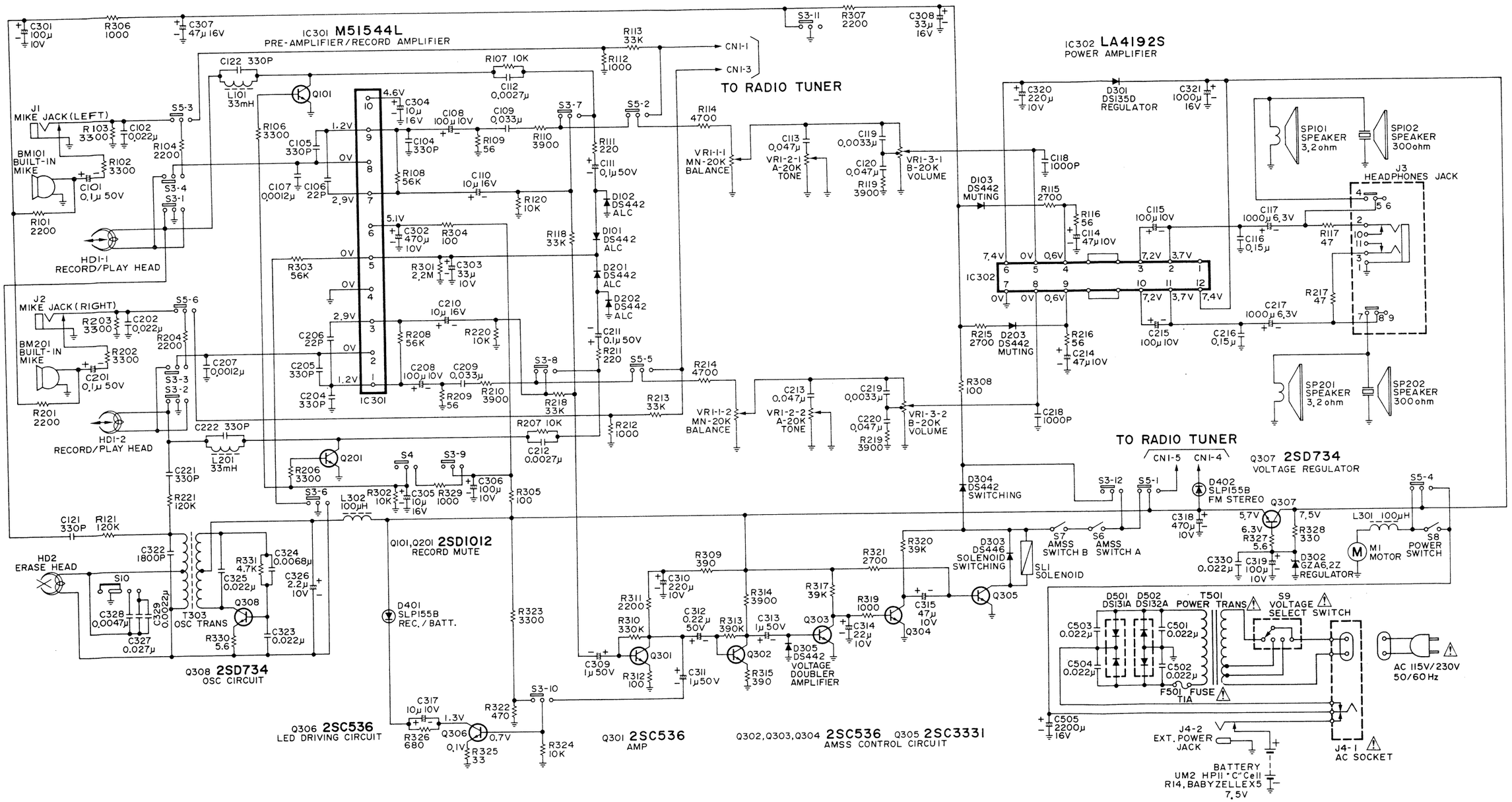
SCHEMATIC DIAGRAM (Tuner)



P.C.BOARD & WIRING DIAGRAM (Amplifier)



SCHEMATIC DIAGRAM (Amplifier)



No.	Name	Position	No.	Name	Position
S1	Band Select Switch	LW	S6	AMSS Switch A	OFF
S2	FM Mode Switch	MONO	S7	AMSS Switch B	OFF
S3	Record/Play Switch	PLAY	S8	Power Switch	OFF
S4	Record Mute Switch	OFF	S9	Voltage Select Switch	230V
S5	Function Switch	TAPE	S10	Beat Cancel Switch	1

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

SERVICE MANUAL

SANYO

STEREO RADIO CASSETTE RECORDER

142 382 12 (Silver)
142 382 13 (Red)
142 382 14 (Blue)

M7200LU

EUROPE

Add this sheet to Model M7200LU (WM-10719) Service Manual.

October/'83/2,200

This model M7200LU has three color versions; **Silver, Red** and **Blue** colors and there are some different parts of the exteria due to the kinds of color but the content is identical in all respects. They are classified in the following parts list and the correction should be made in the SERVICE MANUAL and PARTS (PRICE) LIST. For other items, refer to the Sevice Manual for original model (WM-10719).

PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	141 6 1419 69102	Individual Carton (Silver)	1
	141 6 1419 69105	Individual Carton (Red)	1
	141 6 1419 69106	Individual Carton (Blue)	1
	141 6 1449 88800	Styrofoam Case, Right	1
	141 6 1449 88900	Styrofoam Case, Left	1
	141 6 2519 17190	Poly Cover	1
	141 6 4559 00100	Serial No. Sheet	3
	ACCESSORIES		
	4 2419 72492	Cassette	1
⚠	4 2439 70310	Power Cord	1
	141 6 2519 11022	Poly Cover 110 x 220	1
	141 6 2519 25035	Poly Cover 250 x 350	1
	141 6 4729 07400	Caution Label	1
	141 6 4729 16700	Caution Label	1
	141 6 4729 37373	FTZ Notice	1
	142 6 4119 31855	Instruction Book	1
	CABINET		
	4 2359 76370	Receptacle	5
	4 2359 70990	Socket Pin RT	1
CA1	141 0 1119 94502	Cabinet Top Assy (Silver)	1
	Following Speakers are included in Cabinet Top		
	4 1519 71211	Speaker (300Ω) [SP102 & SP202]	2
CA1	141 0 1119 94503	Cabinet Top Assy (Red)	1
		Cabinet Top include Speakers	
CA1	141 0 1119 94504	Cabinet Top Assy (Blue)	1
		Cabinet Top include Speakers	
CA2	141 0 1249 25800	Lid Cassette Assy (Silver)	1
CA2	141 0 1249 25803	Lid Cassette Assy (Red)	1
CA2	141 0 1249 25804	Lid Cassette Assy (Blue)	1
CA3	141 2 8529 06200	Spring Lid Cassette	1
CA4	141 2 4469 44900	Cushion	2
CA5	141 2 1519 24700	Reflector	1
CA6	141 2 1559 08200	Ring Speaker	2
CA7	141 2 1639 55000	Knob Fine Tuning	1
CA8	141 2 1639 54800	Knob Tuning	1
CA9	141 2 4469 31700	Cushion MIC	2
CA10	141 0 5519 08500	Gear Eject Assy	1
CA11	141 2 1639 54900	Knob Volume	3
CA12	141 2 7419 77200	Lock Lid Cassette	1
CA13	141 0 1719 10900	Handle Assy (Silver)	1
CA13	141 0 1719 10902	Handle Assy (Red)	1
CA13	141 0 1719 10903	Handle Assy (Blue)	1
CA14	141 2 2719 18500	Holder Handle	2
CA15	141 2 1149 31900	Screen Speaker	2
CA16	4 1519 71660	Speaker (3.2Ω) [SP101]	1
CA16	4 1519 71660	Speaker (3.2Ω) [SP201]	1
CA17	141 2 3729 00801	Bracket Fix Speaker	4
CA18	141 2 4469 45601	Cushion	1
CA19	141 2 1339 31000	Lid Battery (Silver)	1
CA19	141 2 1339 31002	Lid Battery (Red)	1
CA19	141 2 1339 31003	Lid Battery (Blue)	1
CA20	141 2 1119 92203	Cabinet Bottom (Silver)	1
CA20	141 2 1119 92204	Cabinet Bottom (Red)	1
CA20	141 2 1119 92205	Cabinet Bottom (Blue)	1

Ref. No.	Part No.	Description	Q'ty
CA21	141 2 2899 26700	Sheet Lid Cassette	1
CA22	141 2 1649 12900	Knob Band Select	1
CA23	141 2 4219 09801	Screw	7
CA24	4 2449 70330	Rod Antenna	1
CA25	141 2 4729 03001	Lug	1
CX1	101 3 1302 60614	Screw, Pan Hd., +M2.6x6	1
CX2	102 3 1302 60811	Screw, Pan Hd. Tapping-1, +M2.6x8	1
CX3	102 3 1303 01011	Screw, Pan Hd. Tapping-1, +M3.0x10	4
CX4	143 3 1303 03013	Screw, Pan Hd. Tapping-B, +M3.0x30	1
	RADIO CHASSIS		
	141 2 4729 05300	Wire Band	1
DC1	141 2 3119 19703	Chassis Radio (Silver)	1
DC1	141 2 3119 19704	Chassis Radio (Red)	1
DC1	141 2 3119 19705	Chassis Radio (Blue)	1
DC2	4 1539 70661	Microphone [BM101 &BM201]	2
DC3	141 2 5389 03400	Drum	1
DC4	141 2 8519 78000	Spring Stop	1
DC5	141 2 8119 12201	Counter	1
DC6	141 2 5649 06000	Belt Counter	1
DC7	141 2 8139 10600	Bracket Counter	1
DC8	141 2 3519 57700	Bracket Arm Eject	1
DC9	141 2 8519 29400	SPG Stop Lever	1
DC10	141 0 1939 00453	Power Supply P.C.B. Assy [**See PCB3**]	1
DC11	141 2 4219 14200	Screw	1
DC12	141 2 3829 20800	SPG Battery	1
DC13	141 2 3829 06700	Terminal BAT Anode	1
DC14	141 2 3829 18000	SPG Terminal	1
DC15	141 2 5119 09400	Pointer	1
DC16	141 2 1449 56900	Plate Dial	1
DC17	141 2 4219 14000	Screw	3
DC18	141 2 5519 03300	Roller Dial A	3
DC19	141 2 8259 05900	Roller Dial	2
DC20	4 2249 70710	Fine Tuner [FT1]	1
DC21	141 2 7519 58400	Shaft Tuning	1
DC22	141 0 1939 02110	Switch P.C.B. Assy [**See PCB4**]	1
DC23	141 2 4469 39300	Cushion Switch	2
DC24	141 2 2449 41700	Screen Switch	2
DC25	141 2 1629 06900	Knob Band Select	1
DC26	141 0 1939 02140	Radio Tuner P.C.B. Assy [**See PCB2**]	1
DC27	141 0 1939 00460	LED Indicator P.C.B. Assy [**See PCB5**]	1
DC28	141 0 1939 00442	Amplifier P.C.B. Assy [**See PCB1**]	1
DC29	141 2 1659 18900	Knob Switch	1
DC30	141 2 1629 06800	Knob Function	1
DY1	628 3 0911 00000	String 0.5 WH	1
DY2	102 3 1302 60611	Screw, Pan Hd. Tapping-1, +M2.6x6	2
DY3	102 3 1302 60811	Screw, Pan Hd. Tapping-1, +M2.6x8	4
DY4	102 3 1302 61011	Screw, Pan Hd. Tapping-1, +M2.6x10	1
DY5	102 3 1302 61411	Screw, Pan Hd. Tapping-1, +M2.6x14	3
DY6	112 3 1303 00040	E Ring, M3.0	1

NOTE:
1. Parts order must contain Model Number, Part Number and description.
2. Ordering quantity of screws and ressitors must be multiple of 10pcs.

SANYO ELECTRIC TRADING CO., LTD.
OSAKA, JAPAN

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